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ADVANCE PLANNING PROGRAM

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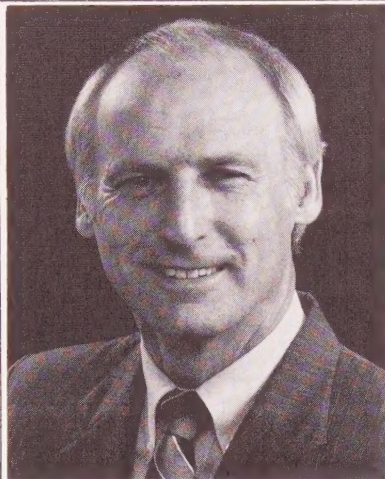
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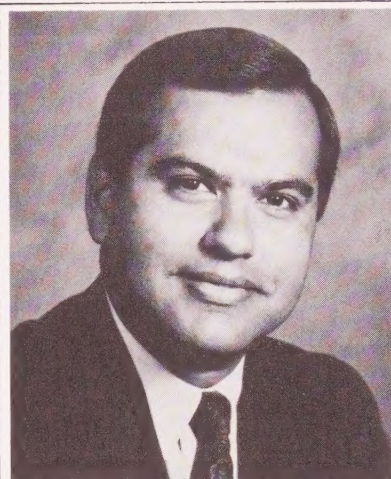
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PUBLIC SERVICES AND FACILITIES ELEMENT

COUNTY OF ORANGE

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ADVANCE PLANNING DIVISION

January 9, 1985

(GENERAL PLAN MODERNIZATION)

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TABLE OF CONTENTS

Chapter One: Introduction

A. Overview	PSF-1-1
B. Scope and Purpose of the Element	PSF-1-1
C. Relationship to the Advance Planning Program	PSF-1-3
D. Consistency with Other General Plan Elements	PSF-1-4
E. Related Planning Programs and Agencies	PSF-1-5

Chapter Two: Inventory of Existing Conditions and Future Trends

A. Introduction	PSF-2-1
B. County Growth Trends	PSF-2-1
1. Data Sources	PSF-2-1
2. Development Patterns and Trends	PSF-2-4
C. Inventory of Existing and Future Trends	PSF-2-12
1. Flood Control System	PSF-2-12
a. Introduction	PSF-2-12
b. Description of Flood Control System	PSF-2-12
c. Future Prospects	PSF-2-16
d. Summary	PSF-2-17
2. Waste Management System	PSF-2-18
a. Introduction	PSF-2-18
b. County Waste Management System	PSF-2-19
c. Future Prospects	PSF-2-24
3. Water System	PSF-2-27
a. Introduction	PSF-2-27
b. Description of County Water System	PSF-2-29
c. Future Prospects	PSF-2-38
4. Wastewater System	PSF-2-40
a. Introduction	PSF-2-40
b. Description of County Wastewater System	PSF-2-40
c. Future Prospects	PSF-2-45
5. Transportation System	PSF-2-46
a. Introduction	PSF-2-46
b. Description of County Transportation System	PSF-2-47
c. Future Prospects	PSF-2-53
d. Implementation Issues	PSF-2-57
6. Community Facilities	PSF-2-59
a. Orange County Fire Department	PSF-2-59
b. Orange County Public Library	PSF-2-65
c. Sheriff Patrol Service	PSF-2-69
d. County Service Areas	PSF-2-71
e. Orange County Street Lighting Assessment District	PSF-2-75
f. Schools	PSF-2-76
g. Child Care Improvement Program	PSF-2-112

Chapter Three: Constraints and Opportunities	
A. Overview	PSF-3-1
B. Constraints	PSF-3-1
1. Environmental Constraints	PSF-3-1
2. Fiscal Constraints	PSF-3-1
3. Government Constraints	PSF-3-2
4. Economic and Market Constraints	PSF-3-3
C. Opportunities	PSF-3-3
1. Environmental Opportunities	PSF-3-3
2. Governmental/Fiscal Opportunities	PSF-3-3
3. Economic and Market Opportunities	PSF-3-4
Chapter Four: Public Services and Facilities: General Issues and Comprehensive Strategy	
A. Overview	PSF-4-1
B. Emerging Issues	PSF-4-1
C. Goals, Objectives and Policies	PSF-4-5
D. Implementation Programs	PSF-4-6
Chapter Five: Flood Control System Component	
A. Overview	PSF-5-1
B. Goal, Objectives and Policies	PSF-5-1
C. Implementation Programs	PSF-5-2
Chapter Six: Waste Management Component	
A. Overview	PSF-6-1
B. Goal, Objectives and Policies	PSF-6-1
C. Implementation Programs	PSF-6-2
Chapter Seven: Water System Component	
A. Overview	PSF-7-1
B. Goal, Objectives and Policies	PSF-7-1
C. Implementation Programs	PSF-7-2
Chapter Eight: Wastewater System Component	
A. Overview	PSF-8-1
B. Goal, Objectives and Policies	PSF-8-1
C. Implementation Programs	PSF-8-2
Chapter Nine: Transportation System Component	
A. Overview	PSF-9-1
B. Goal, Objectives and Policies	PSF-9-2
C. Implementation Programs	PSF-9-3

Chapter Ten: Community Facilities Component

I.	Orange County Fire Department	PSF-10-1
A.	Overview	PSF-10-1
B.	Goal, Objectives and Policies	PSF-10-1
C.	Implementation Programs	PSF-10-3
II.	Library	PSF-10-8
A.	Overview	PSF-10-8
B.	Goal, Objectives and Policies	PSF-10-8
C.	Implementation Programs	PSF-10-9
III.	Sheriff Patrol	PSF-10-12
A.	Overview	PSF-10-12
B.	Goal, Objectives and Policies	PSF-10-12
C.	Implementation Programs	PSF-10-12
IV.	County Service Areas	PSF-10-15
A.	Overview	PSF-10-15
B.	Goal, Objectives and Policies	PSF-10-15
C.	Implementation Programs	PSF-10-16
V.	Orange County Street Lighting Assessment District	PSF-10-18
A.	Overview	PSF-10-18
B.	Goal, Objectives and Policies	PSF-10-18
C.	Implementation Programs	PSF-10-19
VI.	Orange County Schools	PSF-10-20
A.	Overview	PSF-10-20
B.	Goal, Objectives and Policies	PSF-10-20
C.	Implementation Programs	PSF-10-21
VII.	Child Care Improvement Program	PSF-10-24
A.	Overview	PSF-10-24
B.	Goal, Objectives and Policies	PSF-10-24
C.	Implementation Programs	PSF-10-24

LIST OF TABLES, CHARTS AND MAPS

Tables

2-1	Orange County Demographic Projections	PSF-2-2
2-2	Projected Population Growth Trends	PSF-2-5
2-3	Projected Housing Growth Trends	PSF-2-7
2-4	Projected Employment Growth Trends	PSF-2-10
2-5	Summary of Landfill Operations	PSF-2-22
2-6	Present and Projected Daily Tonnage Generated by Service Area	PSF-2-26
2-7	Orange County Water Distributors	PSF-2-37
2-8	Planned Water System Improvements	PSF-2-39
2-9	Joint-Powers Wastewater Agencies in Orange County	PSF-2-42
2-10	Major Wastewater Treatment Agencies	PSF-2-44
2-11	Planned Transportation System Improvements	PSF-2-56
2-12	Districtwide Enrollment Projection 1987/88-2001-02 Saddleback Valley Unified School District	PSF-2-87
2-13	Estimated Costs of Capital Improvement, SVUSD	PSF-2-89
2-14	Comparison of Permanent and Portable Capacities	PSF-2-92
2-15	Enrollment Projections	PSF-2-94
2-16	1990 Capacity Shortfall	PSF-2-95
2-17	CUSD and BIA Generation Factors	PSF-2-96
2-18	Projected New School Need, 1992	PSF-2-98
2-19	Summary of Capacities	PSF-2-102
2-20	Summary of Schools Reaching Design Capacity	PSF-2-103
2-21	Current and Projected Enrollment Summary 1988-1992	PSF-2-107
2-22	Hispanic Population and Enrollment 1980-1985	PSF-2-108
2-23	Short Term Capital Facility Needs	PSF-2-109
4-12	Facility Requirements - 1982 to Year 2000	PSF-4-4

Charts

2-1	Orange County Socioeconomic Projections	PSF-2-3
2-2	Orange County Water Agencies	PSF-2-29
2-3	Site Reaching Design Capacity	PSF-2-84

Maps

1-1	Regional Statistical Areas	PSF-1-2
2-2	Population	PSF-2-6
2-3	Housing Units	PSF-2-8
2-4	Employment	PSF-2-11
2-5	Santa Ana River Basin Watershed	PSF-2-13
2-6	Santa Ana River Main Stem Project	PSF-2-15
2-8	Existing and Proposed County Operated Solid Waste Facilities	PSF-2-20
2-9	Projected Waste Generation by Service Area	PSF-2-25
2-10	California Water System Facilities	PSF-2-31
2-11	Orange County Groundwater Facilities	PSF-2-33
2-12	Orange County Water System	PSF-2-35

2-13	Orange County Wastewater Districts	PSF-2-41
2-14	State Freeway and Expressway System	PSF-2-49
2-15	Master Plan of Arterial Highways	PSF-2-50
2-16	Orange County Fire Department	PSF-2-64
2-17	Orange County Public Library	PSF-2-68
2-18	Orange County Cities and Communities Served by Orange County Sheriff	PSF-2-70
2-19	County Services Areas	PSF-2-72
2-20	Orange County School Districts	PSF-2-77

CHAPTER ONE: INTRODUCTION

A. Overview

The Public Services and Facilities Element, one of eight elements of the General Plan, contains County policies on the planning and provision of public services and facilities that are necessary for orderly growth and development. The eight elements provide the mid-range (15- to 20-year) portion of the planning program and focus and objectives and policies at the Regional Statistical Area (RSA) level (See Map 1-1). All elements have the same horizon year (2000) and growth assumptions to ensure internal consistency. The Public Services and Facilities Element presents policies and programs for public services and facilities and provides guidance for future public facility planning studies for the County.

The Public Services and Facilities Element text is divided into ten chapters. The first chapter provides an overview of the scope and purpose of the element. Chapter Two is an inventory of existing and future growth and development patterns and the characteristics of the County's public facility systems. Future prospects and planning constraints and opportunities for all public services systems are presented in Chapters Three and Four. Chapters Five through Ten ("The Components") each focus on a separate service system category: Water, Transportation, Waste Management, Wastewater, Flood Control and Community Facilities. In addition to goals and objectives, these chapters provide implementation policies and programs which address the constraints and issues identified in Chapters Three and Four. Detailed reference materials and supporting data are contained in the appendices.

B. Scope and Purpose of the Element

The Public Services and Facilities Element sets forth a comprehensive strategy for the planning, management, and implementation of public facilities that are necessary to meet Orange County's existing and future demands.

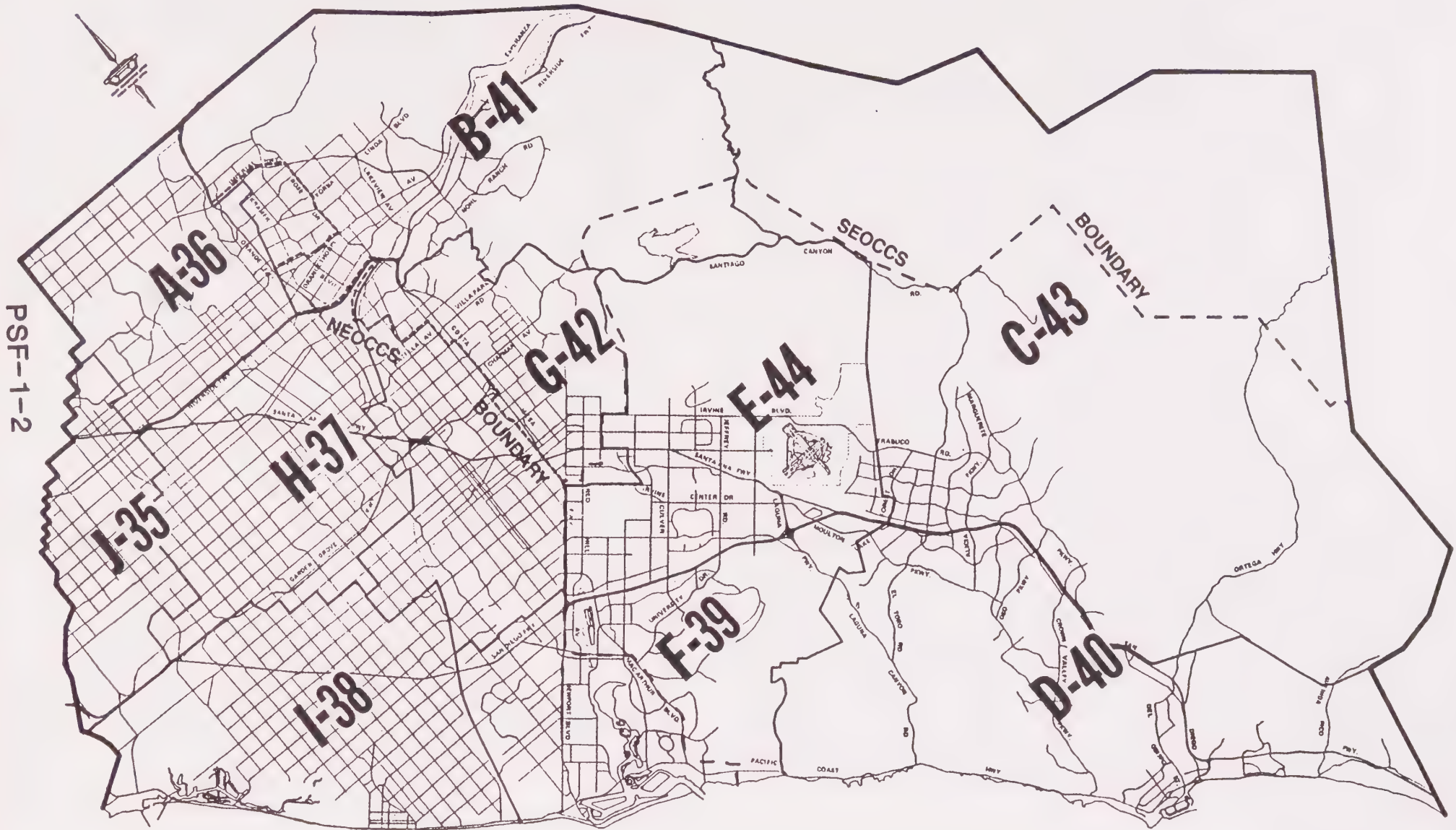
This strategy is expressed as an integrated framework of public facility goals, policies, and programs. The goals of the element are based primarily on quantified objectives, an assessment of public facility needs, and the identification of problems impeding the planning, management, or implementation of County public facilities. The policies and programs of the Public Services and Facilities Element form an effective implementation plan to meet the established goals. Consequently, the Public Services and Facilities Element serves to guide and direct local government decision making in public facility-related matters, and also fosters coordination with regional, state, and federal policies and programs.

The primary objectives of the Public Services and Facilities Element include:

1. Establishment of a framework which identifies and provides for the coordination and planning of public services and facilities (as described in the Element's six components);

REGIONAL STATISTICAL AREAS

MAP 1-1



PSF-1-2

2. Integration of public facilities planning into the Advance Planning Program in a format consistent with the other General Plan Elements.
3. Establishment of a process which promotes the provision of public services and facilities necessary to implement the General Plan.

While this Public Services and Facilities Element text provides a significant informational resource, it is not the final or ultimate version of the Element. Rather, the intent of this Phase I document is to establish the basic framework for the Element by describing facilities of Countywide/regional importance and key community facilities (e.g., fire). The basis for much of the data and analysis that will be portrayed in the Element is a compilation of adopted studies/plans prepared in the past by EMA and other County offices and agencies. These include the Development Monitoring Program (DMP), the County Water Plan, the solid Waste Master Plan, the Master Plan of Capital Facilities, the Long - and Short-Range Transportation Plans and Orange County Transportation Commission's (OCTC) Fifteen Year Investment Plan. Future amendments to the Public Services and Facilities Element will address additional community-level facilities, including schools and expand the scope and detail of the service system analysis.

C. Relationship to the Advance Planning Program

1. Component I: Long - Range Planning Framework

Component I provides the long-range (through the year 2020) planning framework and general goals for the Advance Planning Program. Included within this document are broad public services and facilities goals which provide a basis for the more specific goals and policies contained in the Public Services and Facilities Element.

2. Component II - The General Plan Elements

The General Plan Elements address a 15-to 20-year time frame. Component II of the Advance Planning Program consists of the eight General Plan Elements, including the Public Services and Facilities Element.

A major goal of the Public Services and Facilities Element is to promote the planning, management and implementation of public facilities to meet the current and projected needs of Orange County. While this goal is a high priority, it must be achieved while maintaining internal consistency among the other elements of the General Plan as required by State law. Therefore, the Public Services and Facilities Element does not replace or supersede any of the other General Plan Elements; instead the Public Services and Facilities Element addresses, amplifies and supports public service and facility concerns identified in the other General Plan Elements.

The Public Services and Facilities Element is implemented by various coordinated programs which were developed to both: 1) support and carry out its goals, quantified objectives and policies; and 2) support the

efforts of the many non-County service providers (e.g., utilities). The Public Services and Facilities Element is the most current expression of County public facility policies. It achieves internal consistency with the other General Plan Elements through the use of common socioeconomic projections and assumptions and the pursuit of common major goals such as balanced land use and public facilities development.

Although the Public Services and Facilities Element is consistent with the other General Plan Elements, two features distinguish it from the other seen General Plan Elements. First, the Element addresses service systems that are managed by entities other than the County. Except for transportation, flood control and waste management, many regional public services and facilities are provided by a variety of special districts and quasi-public agencies. Thus, many of the Element's programs are intended to provide increased coordination and cooperation between the County and service providers rather than defining new public facility planning objectives.

Second, the Public Services and Facilities Element focuses exclusively on physical public service delivery systems and capacity issues. Unlike the Resources Element (and other General Plan Elements) that address a variety of land use policy concerns, the Public Services and Facilities Element recognizes the many public facility plans which exist in the County. For example, while the Resources Element addresses the supply and quality issues associated with the County's water resources, the Public Services and Facilities Element describes the major transmission, storage and service facilities which are necessary to convey that water to the user. Consequently, although there is a certain amount of overlap among the General Plan Elements, the Public Services and Facilities Element is the key resource document for infrastructure concerns.

3. Component III - Community Profiles

Community Profiles are the most detailed portions of the Advance Planning Program. They are short-range in scope and focus on community level policies and programs. In addition to a wealth of other information, the Community Profiles depict existing and proposed regional and community public facility sites and inventory the geographic distribution of these facilities. Detailed public facility policies and programs will be primarily implemented through the Component III documents.

D. Consistency With Other General Plan Elements

The Public Services and Facilities Element achieves its consistency with other General Plan elements through the use of common socioeconomic projections and assumptions and the pursuit of common major goals such as balanced land use and public facilities development. Consistency of PSF implementation with specific elements is described below:

1. All maps contained in the PSF Element are for informational purposes only and are not a part of this Element. Those adopted maps contained in the Land Use, Transportation, Recreation, and Resources (Open Space)

elements shall provide General Plan policy guidance for implementing public facilities planning.

2. Major County public facilities shall conform to the adopted Noise and Safety elements.
3. Innovative financing, funding and implementation programs which could serve to minimize infrastructure costs and thus, housing costs are included in the PSF Element consistent with Housing Element direction.
4.
 - a. Regional transportation facilities will be mapped in the Transportation Element.
 - b. Regional public facilities (excluding transportation) will be mapped, to the extent feasible, as Land Use Category 4 (Public Facilities) on the Land Use Element.
 - c. Community facilities will be mapped, to the extent feasible, on the Community Profiles (Component III).
5. The Public Services and Facilities Element provides specific implementation and financing policies and programs for transportation facilities. The Transportation Element (e.g., Master Plan of Arterial Highways) is the County master plan for transportation, and provides general policy and program guidance for facility planning and siting.

E. Related Planning Programs and Agencies

This section summarizes the various federal, state, regional, local, and non-governmental agencies and programs which influence County public facility planning activities.

1. Orange County Preferred-III Demographic Projections

Orange County Preferred-III (OCP-III) contains demographic projections for housing and population. The projections, adopted by the Board of Supervisors, provide a single demographic reference for policy-making and program planning.

OCP-III is used throughout the General Plan (e.g., Land Use, Housing, and Transportation Elements). Moreover, the projections are used by the Orange County Transportation Commission, Orange County Transit District, and County of Orange for all long-range planning and budgeting activities.

Regional Statistical Areas (RSAs) are the geographic units used for the development of these policy projections. These projections are disaggregated to Community Analysis Area (CAAs) for the purpose of performing Development Monitoring Program (DMP) and Areawide Fiscal Impact System (AFIS) analyses. DMP and AFIS analyses are conducted by the County Administrative Office in order to determine the impact of existing and projected development on infrastructure facilities and

fiscal balances. The CAA projections are then disaggregated by EMA to the Traffic Analysis Zone (TAZ) level for transportation planning efforts.

OCP-III served as the County's official input to the SCAG-82 Regional Growth Forecast Policy. SCAG-82 will be implemented through SCAG's regional planning activities, project review, and coordination with city, County, state and federal governments. The adopted forecast is utilized in the development of the Air Quality Management Program and the Regional Transportation Plan which are mandated by federal and state law.

2. Development Monitoring Program

The Development Monitoring Program (DMP) provides an annual report which documents ongoing and projected infrastructure system capacities and demands for various service providers in Orange County. The DMP report also contains fiscal projections for each of the Board governed Special Districts and service agencies. Coupled with the small area population and housing projections described above, the DMP is a tool for use in short-range and long-range facilities planning, budget planning, and in the land use decision making process. The DMP will continue to be used as an early warning system to alert affected bodies to existing and future public service and facility imbalances. The DMP also provides a more detailed, ongoing analysis of the data contained for each service system in Chapter Two of this element.

3. National and Regional Planning Programs

Many agencies are involved in the planning and provision of public services and facilities in Orange County. While these federal, state, and private entity plans and decisions may impact Orange County Planning activities, the U.S. Department of Transportation and California Department of Transportation (CalTrans) wield special influence upon County public facility planning programs.

The U.S. Department of Transportation is responsible for the federal highway assistance programs and related transportation planning and financing activities. CalTrans is the state agency responsible for planning and programming state highway projects; consequently, its decisions influence both growth trends and public facility needs in Orange County. County public facility programs are coordinated with these federal and state planning efforts.

CHAPTER TWO: INVENTORY OF EXISTING AND FUTURE TRENDS

A. Introduction

This chapter provides a discussion of projected county growth which influences the construction, maintenance and operation of flood control, waste management, water, wastewater and transportation systems as well as community services (i.e., fire, library, sheriff, CSA services and lighting districts). The chapter is divided into two sections. The first section presents a detailed inventory of current conditions and projected levels of population, housing and employment. The second section presents an inventory and analysis of County public services and facilities for both current and projected future conditions.

The intent of Section C is to provide an overview of each service system that is discussed in the Public Services and Facilities Element. The tables, plans and maps shown in Section C of this chapter are for informational purposes only and are not a part of the Element. The referenced service agency master plans are updated as necessary by each respective service provider.

B. County Growth Trends

1. Data Sources

For the purposes of the General Plan, 1980 was selected as the baseline for data collection and analysis. The prime advantage of using 1980 as the base year is the availability of Census data, which serve as benchmarks for population, housing, and income trends. In addition, the primary source of land use data -- the Orange County Land Cover Survey -- was compiled in 1980. This survey was conducted by the Environmental Systems Research Institute in cooperation with the County and Southern California Edison.

The horizon year of the County's General Plan is 2010. All projections and analyses of physical and socioeconomic conditions in the county are keyed to this 30-year time frame. Table 2-1 on the following page contains a summary of population, housing and employment trends that are expected to occur during the study period. These projections are broken down by Regional Statistical Area (RSA). Chart 2-1 graphically illustrates the relationships between RSAs for these three variables.

The source of these projections is the Orange County Preferred-1985 (OCP-85) forecast, which was adopted by the Board of Supervisors on February 19, 1985. In addition to its use by County agencies, OCP-85 is the County's official input to SCAG Regional Growth Forecast Policy. The adopted projections can be amended in the following ways:

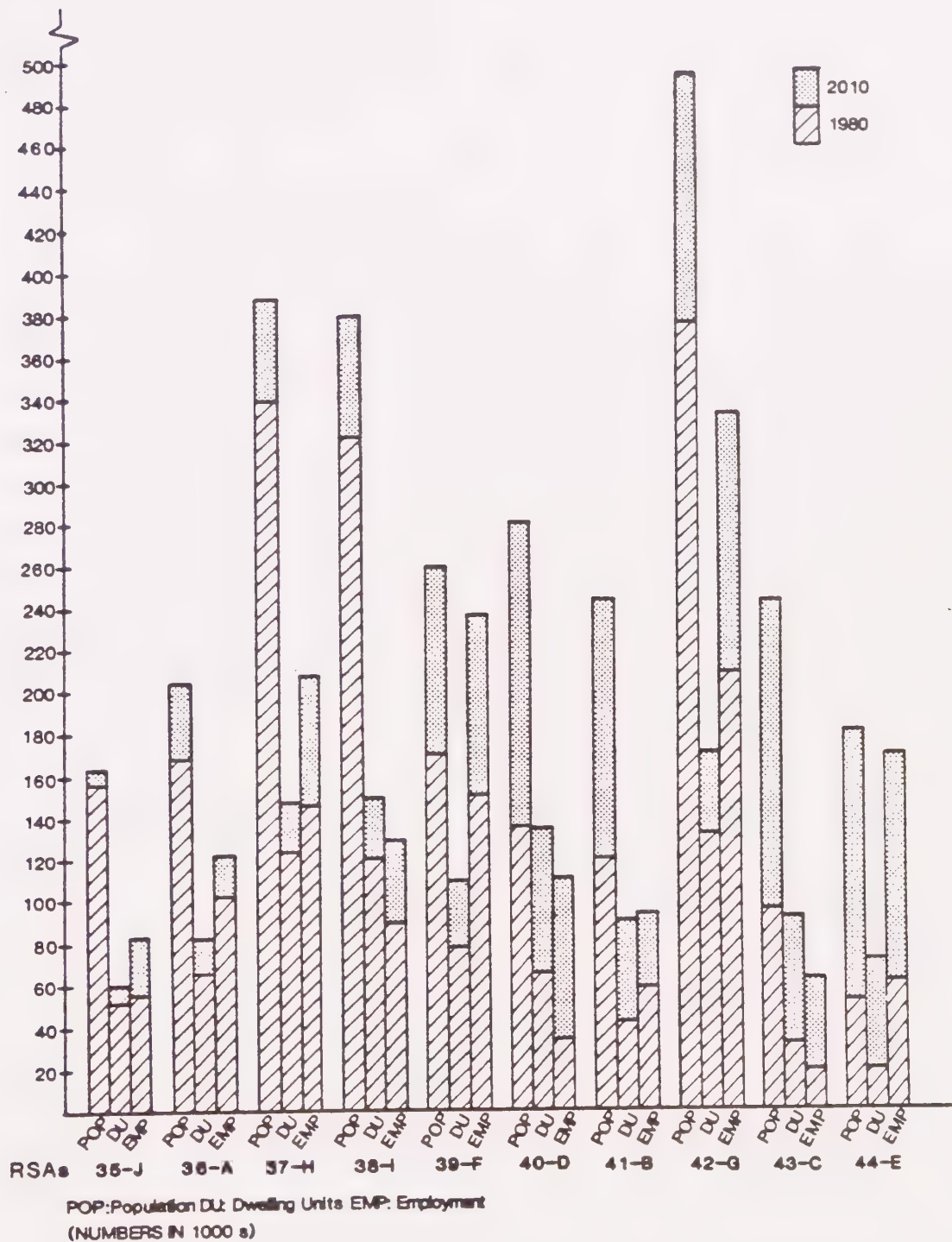
- 1) concurrent with the processing of a project that is inconsistent with the projections;
- 2) through annual review as part of the Development Monitoring Program; or
- 3) as part of the two- to three-year SCAG Regional Development Guide update process.

November 13, 1985

TABLE 2-1
ORANGE COUNTY DEMOGRAPHIC PROJECTIONS

<u>RSA</u>	<u>POPULATION</u>		<u>HOUSING</u>		<u>EMPLOYMENT</u>	
	<u>1980^{a/}</u>	<u>2010^{b/}</u>	<u>1980^{a/}</u>	<u>2010^{b/}</u>	<u>1980^{a/}</u>	<u>2010^{b/}</u>
35-J	156,248	165,400	52,454	59,800	55,200	86,400
36-A	168,782	202,300	64,578	80,900	100,600	125,600
37-H	338,682	389,200	124,875	145,700	146,000	212,000
38-I	321,137	378,900	119,038	150,900	90,300	133,500
39-F	170,644	257,400	74,920	112,500	146,800	237,200
40-D	134,696	279,800	66,072	134,600	32,600	109,900
41-B	116,686	245,900	39,276	86,200	54,900	94,200
42-G	377,316	488,800	130,103	167,400	211,600	336,100
43-C	95,954	242,300	32,885	93,500	17,400	62,800
44-E	52,564	181,100	17,313	69,200	60,000	172,800
COUNTY						
TOTAL	1,932,709	2,831,100	721,514	1,100,700	915,400	1,570,500

Sources: a/ 1980 Census
b/ County of Orange: OCP-85 Projections



Information used for the analysis of service systems and facilities and the identification of policies and programs are extracted from various adopted studies and plans previously prepared by the Environmental Management Agency (EMA), the County Administrative Office (CAO) and other Orange County agencies. These include the County Water Plan, Solid Waste Master Plan, and other county facility master plans.

2. Development Patterns and Trends

During the past 20 years the focal point of Orange County's growth has shifted gradually southward. In the 1950s and 60s the majority of new development occurred in the northern areas of the County such as Anaheim, Fullerton, Orange, Westminster and Fountain Valley. During the 1970s, as vacant land became more scarce in these northern areas the center of growth shifted to the south with the rise of new communities like Irvine, Mission Viejo, and Laguna Niguel. For analytical purposes, North County is generally considered to be the area north and west of the Costa Mesa Freeway (State Highway 55) and contain RSAs 35-J, 36-A, 37-H, 38-I, 41-B and 42-G. South County is represented by RSAs 39-F, 40-D, 43-C and 44-E.

Table 2-2 and Map 2-2 compare the projected population growth trends in the north and south portions of the county. During the 30-year study period, about 56 percent of the county's net population growth is projected to occur in the southern RSAs. Although the rate of growth in North County is declining, this area will still contain the majority of the county's population throughout the study period. In 1980, 77 percent of the County's 1,932,709 people lived in the north. By 2010, it is expected that this figure will fall to 66 percent.

The difference in growth between north and south becomes more apparent when the internal growth rates of the two areas are compared. Between 1980 and 2010, the population of the northern portion of the county is expected to grow by 391,649, or 26 percent. South County will add 506,742 persons during the same period; this represents an increase of 112 percent.

The projected increase in the county's housing stock reflects the population trend identified above. (See Table 2-3 and Map 2-3.) Due to a projected decline in the average household size from 2.68 to 2.57 persons per dwelling unit countywide, the number of new units expected to be built between 1980 and 2010 represents a slightly higher percentage increase than that for the population itself. Consequently, while the county's population is projected to rise by 46 percent (898,391) between 1980 and 2010, the housing stock is expected to increase by 52 percent (379,186 units) over the same interval.

During the next two decades, the spatial distribution of new residential construction is expected to be skewed only slightly toward South County. Fifty-eight percent of the projected 379,186 new units built in the county between 1980 and 2010 are expected to be located in the southern area. Although the northern portion of the county is growing much less rapidly than the south on a percentage basis, by 2010 nearly two-thirds (63 percent) of all housing units will still be found in the northern RSAs.

TABLE 2-2

PROJECTED POPULATION GROWTH TRENDS
NORTH COUNTY vs. SOUTH COUNTY
1980 - 2010

	North County ^{a/}			South County ^{b/}			County Total		
	1980	2010	Change	1980	2010	Change	1980	2010	Change
Total Population	1,478,851	1,870,500	+26%	453,858	960,600	+112%	1,932,709	2,831,100	+46%
Pct. of Total Population	77%	66%	-11%	23%	34%	+11%	100%	100%	--
Growth	--	--	391,649	--	--	506,742	--	--	898,391
Pct. of Growth	--	--	44%	--	--	56%	--	--	100%
Average Household Size	2.79	2.71	-0.08	2.37	2.34	-0.03	2.68	2.57	-0.11

Notes: a/ Includes RSAs 35-J, 36-A, 37-H, 38-I, 41-B and 42-G
b/ Includes RSAs 39-F, 40-D, 43-C and 44-E

Sources: 1980 Census
County of Orange: OCP-85 Projections
Orange County EMA/Advance Planning Division

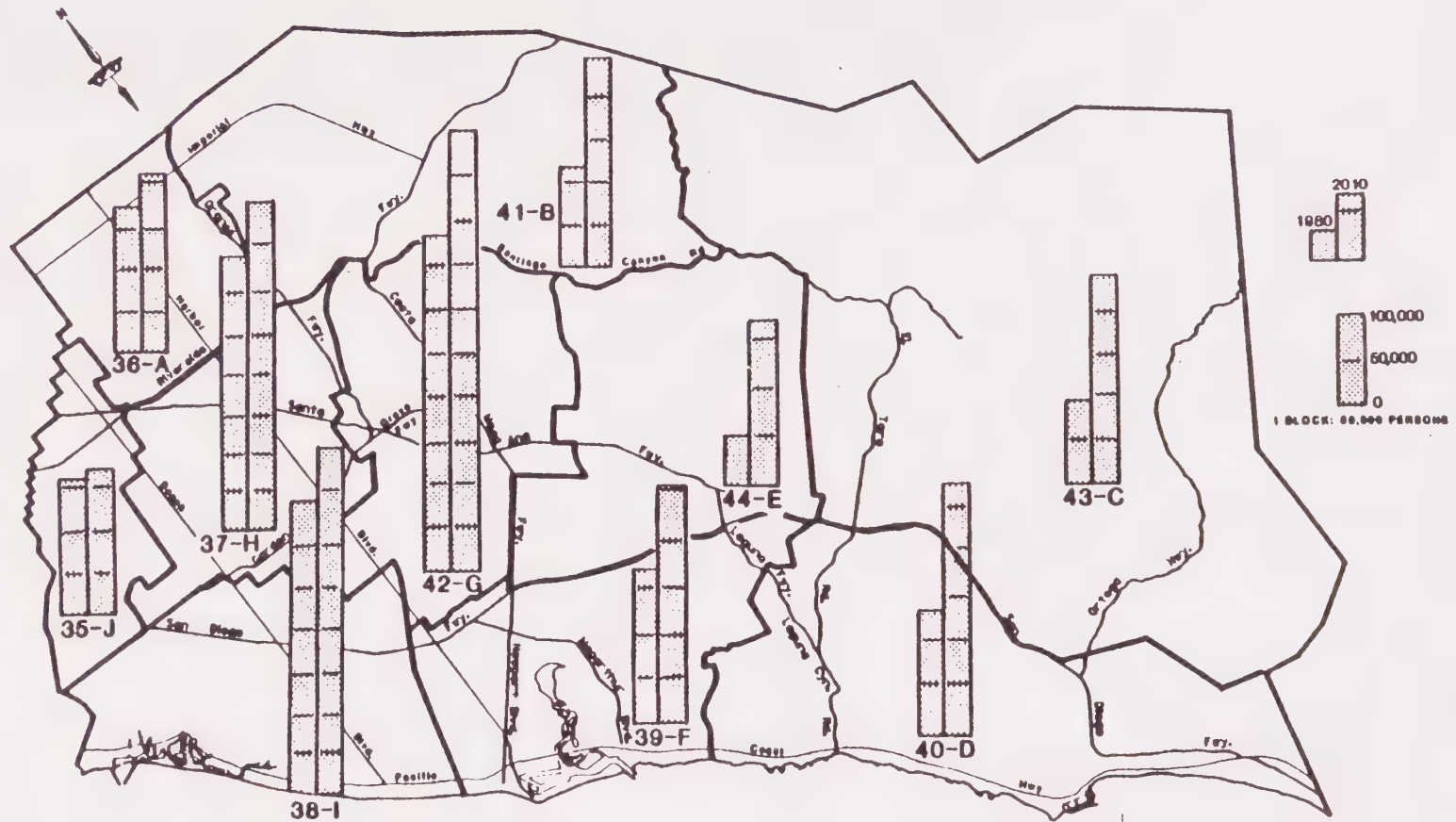


TABLE 2-3

PROJECTED HOUSING GROWTH TRENDS
NORTH COUNTY vs. SOUTH COUNTY
1980 - 2010

	North County ^{a/}			South County ^{b/}			County Total		
	1980	2010	Change	1980	2010	Change	1980	2010	Change
Total Units	530,324	690,900	+30%	191,190	409,800	+114%	721,514	1,100,700	+53%
Pct. of Total	74%	63%	-11%	26%	37%	+11%	100%	100%	--
Growth	--	--	160,576	--	--	218,610	--	--	379,186
Pct. of Growth	--	--	42%	--	--	58%	--	--	100%

Notes: a/ Includes RSAs 35-J, 36-A, 37-H, 38-I, 41-B and 42-G

b/ Includes RSAs 39-F, 40-D, 43-C and 44-E

Sources: 1980 Census

County of Orange: OCP-85 Projections

Orange County EMA/Advance Planning Division



HOUSING UNITS

SOURCE: Orange County
OCP-85

MAP
2-3

County employment patterns are very similar to the population and housing distributions described above. (See Table 2-4 and Map 2-4.) As of 1980, 72 percent of the county's 915,400 jobs were located in North County. This is very similar to the population distribution identified in Table 2-2. By 2010, a moderate southward shift in the employment distribution is projected to occur. The magnitude of this shift is nearly equal to the anticipated shift in population and housing. South County is projected to receive about 50 percent of the new jobs created between 1980 and 2010. Again, this figure is similar to the projected differential growth in population and housing. Overall, the county's employment base is projected to grow faster than its population, with a 72 percent gain between 1980 and 2010. This compares to a projected population growth of 46 percent during the same period.

As the county continues to grow, the pressure on public services and facilities will increase. All public services and facilities will experience increasing demand as the urbanized area expands, but the methods employed to meet these demands will vary. For example, an adequate supply of land resources for facilities already exists in the unincorporated areas, but it is necessary that affirmative steps be taken to set aside areas during the planning and development review process. The demand for some other services and facilities, such as flood control and water, cannot be met entirely within the borders of Orange County. The County must ultimately depend on cooperation with other counties and agencies for the provision of an adequate supply of these services. One of the major purposes of the Public Services and Facilities Element is to provide a clear statement of County policy so that timely steps can be taken to ensure that an adequate supply to all necessary services and facilities will be available to meet the county's growth needs.

TABLE 2-4

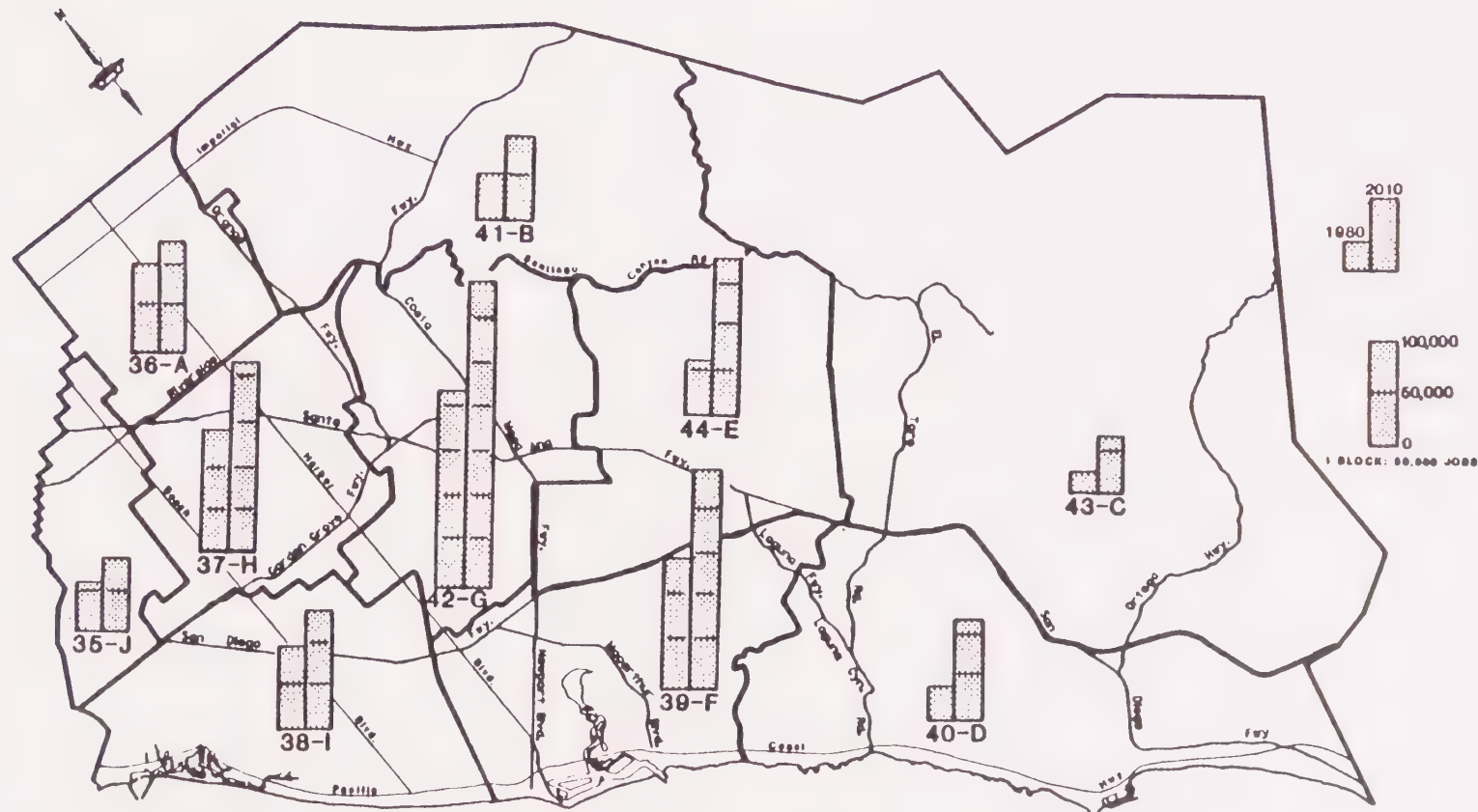
PROJECTED EMPLOYMENT GROWTH TRENDS
NORTH COUNTY vs. SOUTH COUNTY
1980 - 2010

	North County ^{a/}			South County ^{b/}			County Total		
	1980	2010	Change	1980	2010	Change	1980	2010	Change
Total Employment	658,600	987,800	+50%	256,800	582,700	+127%	915,400	1,570,500	+72%
Pct. of Total Employment	72%	63%	-9%	28%	37%	+9%	100%	100%	--
Growth	--	--	329,200	--	--	325,900	--	--	655,100
Pct. of Growth	--	--	50%	--	--	50%	--	--	100%

Notes: a/ Includes RSAs 35-J, 36-A, 37-H, 38-I, 41-B and 42-G

b/ Includes RSAs 39-F, 40-D, 43-C and 44-E

Sources: Orange County EMA/Advance Planning Division
County of Orange OCP-85



SOURCE: Orange County
OCP-85

MAP
2-4

C. Inventory of Existing and Future Trends

1. Flood Control System

a. Introduction

It is paradoxical that areas such as Orange County which suffer from a chronic shortage of water are vulnerable to severe flooding. Due to its lack of vegetation and increased exposure to the sun, the ground surface of semi-arid Orange County is less able to accommodate extremely heavy rainfall than are counties in more humid climates. During peak rain periods, the ground passages become sealed and the rate of runoff increases. Runoff is further increased by urbanization because whenever the ground is covered by pavement or an impermeable surface, direct absorption of precipitation by the underlying soil is precluded. These natural forces are only a portion of Orange County's flood problem. The regional context of the County's flood control watershed, and the necessary improvements in this large-scale watershed, further complicate the provision of flood control facilities in Orange County.

b. Description of Flood Control System

Orange County's flood control effort is divided among three major areas: Tri-County System (San Bernardino, Riverside and Orange Counties), regional system and local drainage program. An overview of each is included in the following sections.

1) Tri-County System

The Santa Ana River Basin area is the largest watershed in Southern California with over 3,200 square miles. (See Map 2-5.) The watershed area is separated into an upper and a lower basin divided by Prado Dam and Reservoir near the City of Corona. The lower basin which encompasses Orange County is protected from flooding by Prado Dam. During heavy rains in 1970, Prado Dam was found only to be capable of withstanding a (once every) 70 year flood rather than the more severe Standard Project Flood (SPF). SPF describes a storm of the most severe meteorological and hydrological conditions on record for a region. To rectify this situation the U.S. Army Corps of Engineers has recommended the All-River Plan to construct projects to provide SPF protection. The Santa Ana River Main Stem Federal Project (including Santiago Creek) (see Map 2-6), contained in the Water Resources Development Act of 1986 (PL 99-662), was signed by the President on November 17, 1986.



NOTE: This map is for informational purposes only and is not a part of this element.

SANTA ANA RIVER BASIN WATERSHED

SOURCE: Orange County

MAP
2-5

2) Regional System

Orange County Flood Control District

The Orange County Flood Control District (OCFCD) is empowered to construct and maintain flood control works to prevent or minimize loss of life and property caused by flooding, and for water conservation. The Environmental Management Agency (EMA) is responsible for implementing the Flood Control District's funded activities program which includes the design, construction, operation and maintenance of regional flood control facilities.

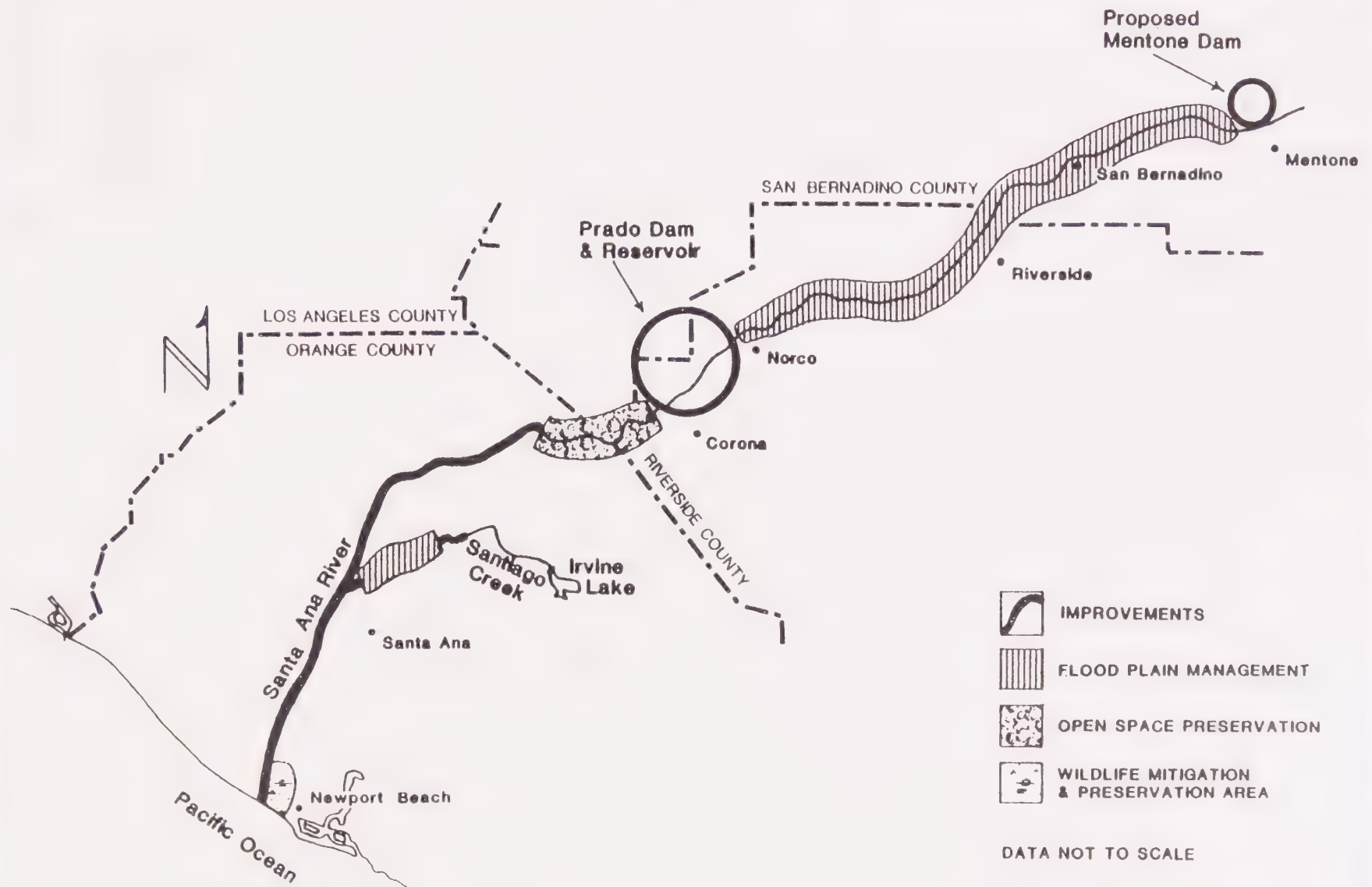
The Flood Control District program is assisted by the City Engineers Flood Control Advisory Committee (CEFCAC), which is composed of one City Engineer from each Supervisorial District appointed by the Orange County Division, League of California Cities and a County representative designated by the Director, EMA. Project proposals from all sources are analyzed by Flood Control District staff and submitted to CEFCAC for project recommendations and priorities. The recommendations are utilized by EMA in preparing the annual Flood Control District budget request.

Flood Control District revenue is obtained mainly from property taxes. Under the provisions of Sections 97 and 98 of the Revenue and Taxation Code, the amount of Flood Control District revenue derived from property taxes is based on the average percentage received during the three years prior to the passage of Proposition 13, plus a proportionate share of the subsequent tax base growth. Subsequent to the passage of Proposition 13, State Special District augmentation funds have also been received.

Local Drainage Program

The County's Local Drainage Program provides for construction of storm drain facilities in the unincorporated portions of the County in order to correct localized flooding problems which are not of sufficient magnitude to include in the Flood Control District Program. A similar local drainage program is carried out by each of the 27 cities in the county.

The storm drains are normally smaller facilities which collect drainage from local streets. In new developments, local drainage facilities are constructed by developers in accordance with master plans of drainage. However, in many older parts of Orange County, local systems were not built due to lack of major systems to accept their discharge. This program allows for implementation of the needed local drainage facilities as County General Funds are made available.



NOTE: This map is for informational purposes only and is not a part of this element.

c. Future Prospects

1) Tri-County System

The U.S. Army Corps of Engineers in 1975 recommended the All-River Plan over four other options as the preferred means of providing main stream physical control over Santa Ana River flood waters. (See Map 2-6.) Under this plan the existing Prado Dam will be modified by raising it 30 feet, constructing a new outlet to double the output, raising the spillway 20 feet, and increasing the crest length 300 feet. New levees will be built to protect existing development. The project will require 1,461 more acres according to location of the proposed new taking line which will accommodate a standard project flood. The improvements will add an additional 3,500 acre-feet to the groundwater supply and will be able to release up to 30,000 cubic feet per second (CFS) during flooding.

The proposed Seven Oaks Dam, which will be located within the San Bernardino National Forest is intended to handle a standard project flood peak of up to 82,000 CFS. Covering 780 acres with a capacity of 160,000 acre-feet of water, this dam will discharge a maximum of 2,000 CFS into the Santa Ana River.

2) Regional System

As a result of the growing population and development in Orange County a number of flood control channels are deficient. Increased urban runoff from roads, parking lots, sidewalks, and building roofs contribute to the problem of increased downstream flows. However, the Flood Control District maintains close monitoring of the County's channels and levees as well as continuing the annual maintenance and improvement projects to maximize flow capacity.

Prior to the passage of Proposition 13, programs for rectifying channel deficiencies were contained in the EMA/Public Work's five-year plan. However, budget reductions resulting from the passage of Proposition 13 have delayed many of the scheduled improvements. Sources for alternative funding may include:

- a) the collection of a flood control fee from new developments. This fee is based on the need for correcting deficiencies in a given watershed to offset the development's contribution to downstream flooding.
- b) the formation of special assessment districts for flood channel improvements. Funds would be generated to pay for the needed improvements by the assessment district and the residents would reimburse the borrowed funds in periodic assessments to the County.

In addition, flood control deficiencies are compounded in existing urban developments when new development upstream contributes to downstream flows. One technique to reduce runoff flows from development is to incorporate structural design improvements. New technologies for runoff reduction have potential and need continued investigation.

Summary

- d. As pavement replaces soil in the Santa Ana River watershed and other South County watershed areas, storm runoff will increase. When stream flows exceed channel capacity, rivers overflow their banks onto their floodplains. Primary options to reduce flood losses revolve around the control of development in the floodplain, land management throughout the watershed to reduce flood volume via soils retention, and engineering measures for physical control of the water.

The finalization and construction of the Santa Ana Main Stem Federal Project (including Santiago Creek) along with improvements to local and regional OCFCD facilities, should provide Orange County with the appropriate flood protection safeguards. This long term protection and improved coordination between local, state, and federal governments should allow continued development of communities within the watershed with minimal adverse impacts.

2. Waste Management System

a. Introduction

The Orange County Board of Supervisors is responsible for establishing county solid waste management policy, enforcing county solid waste regulations, and administering and implementing the Orange County Solid Waste Management Plan (CoSWMP). The city councils of the 26 cities within Orange County are responsible for establishing city solid waste management policy and enacting ordinances for collection, storage and disposal of solid waste within their respective jurisdictions.

Cities and sanitary districts are responsible for providing trash services for their jurisdictions. Most cities have regulations requiring mandatory collection service for residential, commercial and industrial wastes. Authority for trash collection services in unincorporated areas rest with the Board of Supervisors and is administered through the General Services Agency - Waste Management Program.

The operational responsibilities of the landfills and transfer stations have been delegated to General Services Agency (GSA) by the Board of Supervisors. The General Services Agency also administers the county's litter control and disposal programs in the unincorporated areas. GSA operates all landfills. Private operators have assumed operation of all transfer stations.

Prior to October 1982, landfill and transfer station management was funded by property tax revenues from the Orange County General Fund. In July of 1982 the Board of Supervisors established a schedule of gate fees for all landfills and transfer stations. These fees, plus charges for dispersing of sewage sludge in the landfills were implemented in October of 1982 and are to be used for a variety of needs including site operations, future site acquisition, expansion of existing sites, closure costs, resource recovery siting, landscaping, litter and traffic control, and road maintenance. These fees are reviewed annually to determine any necessary adjustments.

The State Waste Management Board was created by the State of California in 1972. This Board provides direction and funding to the counties pursuant to the implementation of the Z'berg-Kapiloff Solid Waste Control Act of 1976. The Act requires the counties to: 1) provide management plans that meet described minimum requirements; and 2) update the management plan every three years. Another role of the state is to provide interactive regulatory functions through the State and Regional Air and Water Quality Boards and the State Department of Health Services. This law also established the local solid waste enforcement agencies. The Santa Ana Regional Water Quality Control Board (RWQCB), under the auspices of the State Water Resources Control Board, regulates landfill operation and closure impacts on ground and surface water quality.

The role and involvement of the federal government in solid waste management is essentially limited to enforcement oversight of federal laws which are implemented by the states. These laws include the Resource Conservation and Recovery Act of 1976, the Clean Water Act, the Clean Air Act and the various provisions regarding hazardous wastes and other regulatory statutes.

b. County Waste Management System

There are four transfer stations and four Class II-2 sanitary landfills which handle virtually all municipal waste generated in Orange County. The four County operated sanitary landfills are located throughout the County and provide service to all residents and businesses (See Map 2-8). The following description of existing and planned transfer stations and landfills is based on information contained in the Solid Waste Management Plan for the County of Orange.

The terms Group 2 and Group 3 wastes describe waste management operations in Orange County. Group 2 wastes consist of, or contain, decomposable materials and include garbage and rubbish from urban activities as well as non-chemical agricultural/landscape wastes. Group 2 wastes also include de-watered, non-hazardous wastewater treatment plant sludge which is currently being transported to Coyote Canyon by the Orange County Sanitation District for disposal. Group 3 wastes are defined to include non-decomposable, inert solids such as construction, demolition and fill materials. Liquids and hazardous wastes such as industrial brines, discarded chemicals and other highly toxic substances (Group 1 wastes) are specifically prohibited from disposal at any County landfill or transfer station.

The management and disposal of hazardous wastes has become a prominent issue in Orange County. While it is not directly related to the operation of the County's existing sanitary landfills, it is important to recognize that the County is undertaking several activities to address hazardous waste issues and to eliminate the potential for misuse of existing sanitary landfills for hazardous waste disposal. The update of the Safety Element of the County General Plan planned for late 1985 will include a Hazardous Materials Component. This component will provide the principle General Plan-level policy framework for hazardous waste management.

1) Transfer Stations

Presently, the County transfers approximately 45 percent of the transferable waste generated in the long-haul areas. Only Group 2 wastes, residential and commercial refuse, are accepted at the transfer stations. Demolition and construction debris, as well as hazardous or toxic waste, must be hauled directly to the appropriate landfill. There is no hazardous or toxic waste disposal site in Orange County. The operation of transfer stations has become a private sector responsibility as the County withdrew from the transfer business over the last few years.



NOTE: This map is for informational purposes only and is not a part of this element.

COUNTY OPERATED SOLID WASTE FACILITIES

SOURCE: Orange County

MAP
2-8

2) Landfills

An overview of landfill operations in the County is depicted in Table 2-5. Individual descriptions are provided below.

Olinda Sanitary Landfill

The Olinda Sanitary Landfill is a Class II-2 site owned by the County, and located in the Chino Hills, immediately south of the Los Angeles County line. This landfill has served northern Orange County communities since 1960.

The Olinda Landfill facility accepts mixed residential, commercial and industrial refuse of the Group 2 and Group 3 type from commercial haulers and the public. No sludge, liquid or hazardous wastes are accepted and solid waste disposal activities are conducted in accordance with State Minimum Standards. Salvage operations are conducted by contractors who pay a fee for the opportunity to salvage materials from the waste stream.

The total estimated disposal capacity remaining at the Olinda site is 48 million cubic yards. When the projected increases in waste generation are taken into account, the remaining life at the landfill is estimated to be approximately ten years; however, a combined operation of Olinda and adjoining Alpha Canyon could increase the life to over more than 20 years.

Santiago Canyon Sanitary Landfill

Santiago Canyon Sanitary Landfill is a Class II-2 site located four miles east of the intersection of Chapman Avenue and Santiago Canyon Road. The landfill has served east-central Orange County communities since January 1968.

The Santiago Canyon disposal site is owned by The Irvine Company and is leased to the County. The site accepts mixed residential, commercial and industrial refuse of the Group 2 or Group 3 type from commercial haulers and the public. Solid waste disposal activities are conducted in accordance with State Minimum Standards. Salvage operations are conducted by a contractor through an arrangement similar to that described above for Olinda Sanitary Landfill.

TABLE 2-5

SUMMARY OF LANDFILL OPERATIONS
JANUARY 1984

	Total Area (acres)	Waste Received Per Day		Capacity (million cu yd) ^(c)		Estimated Remaining Life	Wastes Received	Operating Regulations
		(tons) ^(a)	(cu yds in in-place) ^(b)	In-place	Remaining			
Olinda	335	3,020	5,030	28	19.6	10 (1992)	Group II, III	State Minimum Standards ^(d)
Coyote	635	4,770	7,950	39	14.0	4 (1988)	Group II, III & STP Sludge	State Minimum Standards ^(d)
Santiago	160	1,490	2,480	6.4	7.0	7 (1989)	Group II, III	State Minimum Standards ^(d)
Prima Deshecha	1,500	760	1,270	2.5	78	20 (2002+)	Group II, III & STP Sludge	State Minimum Standards ^(d)

(a) Based on estimates for calendar year 1982, 6 days per week.

(b) 1200 pounds per cubic yards.

(c) In-place or remaining as of January 1984.

(d) Daily cover required.

NOTE: This table is for information purposes only and is not a part of this Element.

The Santiago Canyon site occupies 160 acres, with an estimated total disposal volume of 13 million cubic yards. The remaining capacity for this facility is approximately seven million cubic yards. Based on 1982 estimates of solid waste generation, the remaining life of the Santiago Canyon Sanitary Landfill site is expected to be seven years. Bee Canyon is the replacement for this site.

Prima Deshecha Sanitary Landfill

The Prima Deshecha Sanitary Landfill is a Class II-2 site located on County-owned land approximately three miles east of the intersection of the San Diego Freeway and the Ortega Highway. The landfill has served southern Orange County communities since 1976.

Solid waste disposal activities are conducted in accordance with State Minimum Standards. The site accepts mixed residential, commercial and industrial refuse of the Group 2 and Group 3 type. The total volume of the site is estimated at 80,500,000 cubic yards. When projected increases in waste generation are accounted for, the life of this landfill is estimated to be over 40 years.

Coyote Canyon Sanitary Landfill

The Coyote Canyon Sanitary Landfill began solid waste disposal operation in 1963. The site, which encompasses 653 acres, is owned by The Irvine Company and leased to the County for landfill use. As of 1984, Coyote Canyon has 14 million cubic yards of remaining capacity. The anticipated closure date for this facility is late 1988.

The Coyote Canyon landfill operation functions as a key component of Orange County's solid waste management system. It serves the waste disposal needs of the highly urbanized central and south-central County areas (see Map 2-8) and approximately one-half the total County-wide population. Included within the areas served by Coyote Canyon are a large number of cities and communities which generate a solid waste stream from a mix of residential, commercial, industrial, institutional, recreational and some agricultural uses.

Coyote Canyon is classified as a Class II-2 sanitary landfill disposal site. As a Class II-2 disposal site, Coyote Canyon accepts most types of wastes which fall into two general categories: Group 2 and Group 3, and receives the dewatered sludge from the Orange County Sanitation Districts.

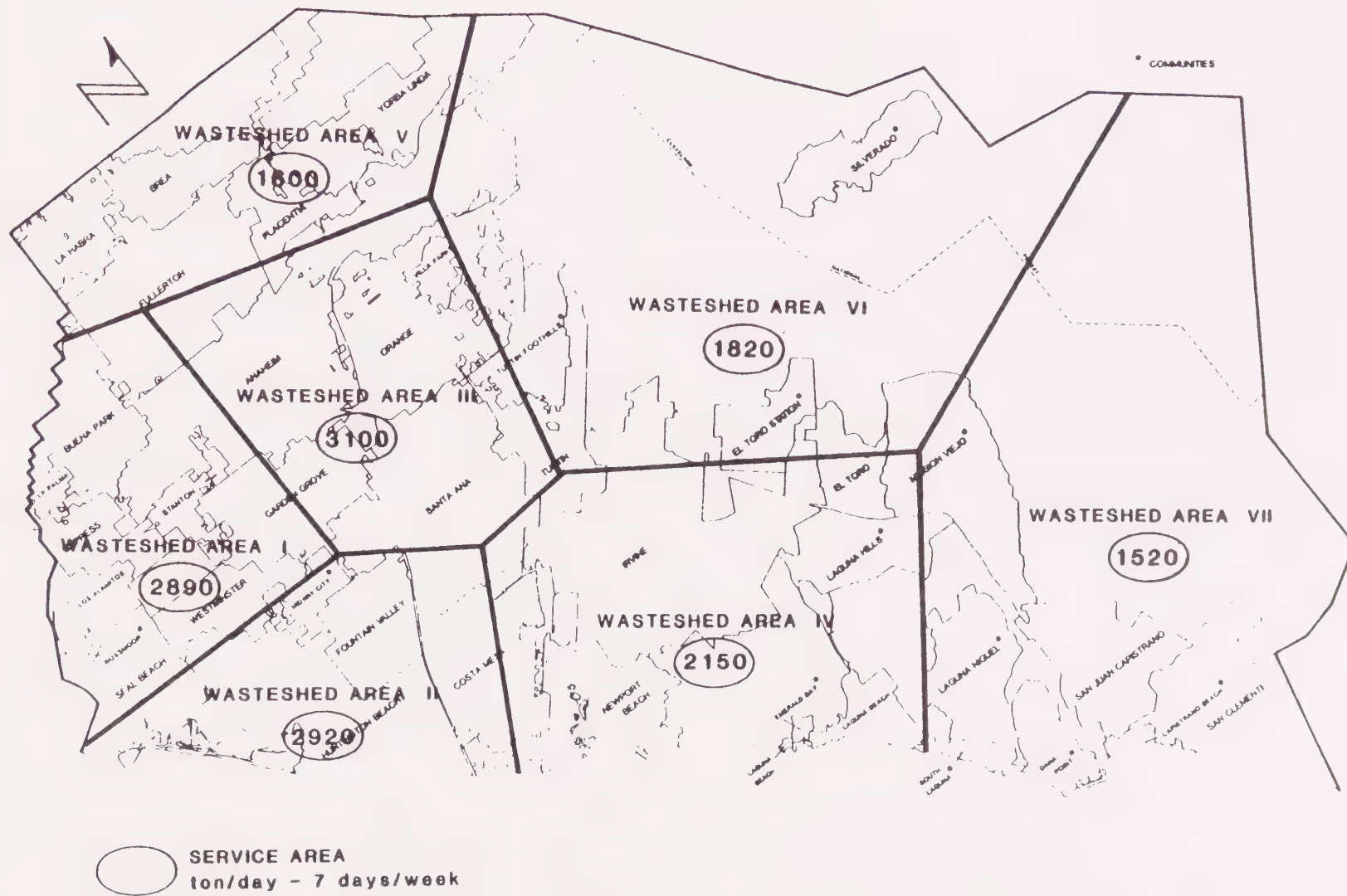
Bee Canyon Sanitary Landfill

The County-owned Bee Canyon Sanitary Landfill site is in the foothills north of El Toro Marine Corps Air Base. This facility will serve as a replacement for Coyote Canyon and Santiago Canyon sanitary landfills when those facilities close.

c. Future Prospects

Solid waste generation projections for the County are based on a percapita generation rate of 8.5 pounds/capita/day for 1982. An increase of 1.5 percent per year to the generation rate was assumed for projections through 2002. These rates were multiplied by the population projections for CAAs in order to determine the solid waste forecasts for solid waste facility service areas.

It should be noted that while the projections were developed based on service area boundaries, the waste generated within the service area of transfer stations is ultimately conveyed to landfills. The solid waste generated within the service areas of the various facilities is presented in Table 2-6. The projected waste generation for the year 2002 is shown on Map 2-9. However, since Santiago, Coyote, and possibly Olinda landfills will be closed by that time, the map illustrates the need for additional facilities in Orange County. Although the landfill at Bee Canyon will meet some of this future demand, additional sites and resource conservation programs will be necessary to meet Orange County's future needs.



NOTE: This map is for informational purposes only and is not a part of this element.

TABLE 2-6

PRESENT AND PROJECTED DAILY TONNAGE
GENERATED BY SERVICE AREA^(a)

Service Area	Daily Tonnage (b)(c) (TPD)			Overall Increase (Percent)
	1982	1992	2002	
Wasteshed Area I	1,875	2,350	2,890	54
Wasteshed Area II	1,845	2,280	2,920	58
Wasteshed Area III	1,950	2,620	3,100	59
Wasteshed Area IV	960	1,550	2,150	124
Wasteshed Area V	950	1,320	1,600	68
Wasteshed Area VI	500	970	1,820	264
Wasteshed Area VII	<u>520</u>	<u>910</u>	<u>1,520</u>	<u>192</u>
Total	8,600	12,000	16,000	86

(a) Represents waste generated within service area boundaries. Does not include waste transported in from other areas.

(b) Lbs./cap./day = 8.5 in 1982, 9.9 in 1992, 11.4 in 2002 (1.5 percent increase per year).

(c) Waste generation proportional to increase in population by Community Analysis Areas. Seven day per week basis.

NOTE: This table is for informational purposes only and is not a part of this Element.

3. Water System

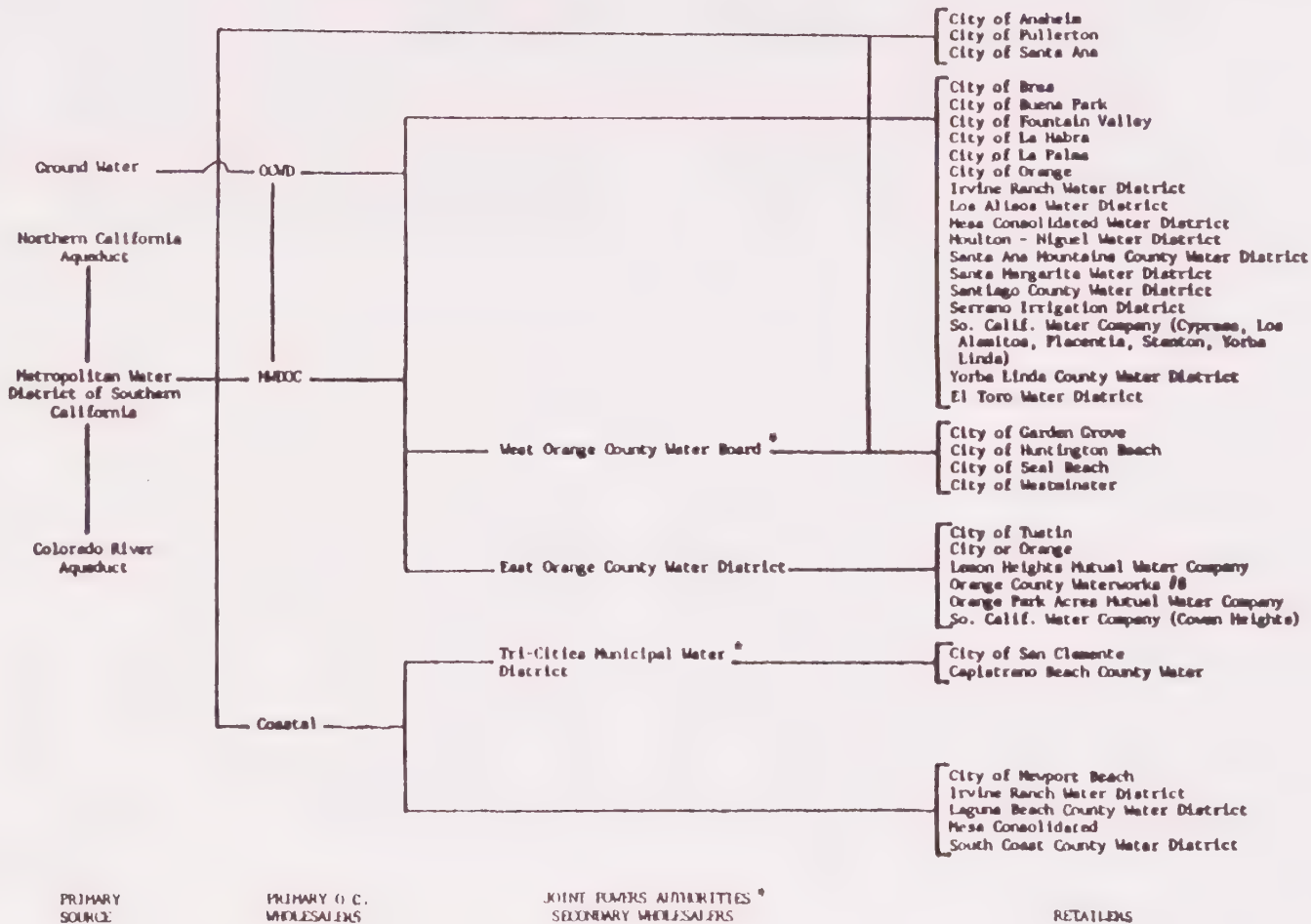
a. Introduction

Orange County consumes approximately 160 billion gallons (500,000 acre feet) of water annually. Approximately 70 percent of this water is imported into Southern California via the facilities of the Metropolitan Water District of Southern California (MWD). MWD supplies are delivered by two principle facilities: (1) the Colorado River Aqueduct; and (2) the California Aqueduct. The second major water supply source for Orange County is the groundwater basin which primarily underlays the northern half of the County. The groundwater supply is replenished by direct rainfall, rainfall within the Santa Ana River watershed and imported water purchased from MWD.

The highly complex water distribution system required to meet Orange County's needs is managed by several, independent agencies. MWD, the primary water importer, supplies water to six counties (Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura). The agency membership consists of 27 entities, including 14 cities, 12 metropolitan water districts and one county water authority (San Diego). MWD has a 50-member board of directors composed of one representative from each member agency plus additional agency representation based on the assessed valuation of property within each agency's jurisdiction.

For Orange County, imported MWD water is purchased and distributed by five separate agencies. Three of the five MWD member agencies are the cities of Anaheim, Fullerton, and Santa Ana. These cities were part of the original 13 cities from Los Angeles and Orange Counties that joined together to create MWD in 1928 in order to build the Colorado River Aqueduct. In order to consolidate wholesale purchases of water from MWD, other Orange County cities joined together to form an organization through which MWD water could be purchased. Thus, the final two Orange County MWD member agencies were formed: the Coastal Municipal Water District (Coastal), formed in 1941, representing the cities of Brea, Costa Mesa, Newport Beach, Laguna Beach and the coastline from Newport Beach to San Clemente; and, the Municipal Water District of Orange County (MWDOC), formed in 1951, representing almost all other portions (90 percent) of Orange county. Together these five MWD member agencies (MWDOC, Coastal, Anaheim, Fullerton and Santa Ana) wholesale imported water to all Orange County cities, private companies and local independent and dependent water districts for storage and direct distribution to their residential and business customers.

Chart 2-2 depicts the interrelationship of these districts to the water distribution flow in Orange County. In the next two sections, the relationship of the physical capacity of these agencies' delivery systems and Orange County's water demand is described. These two items provide the basis for understanding the water system necessary to meet Orange County's existing and future needs.



b. Description of County Water System

There is enough water in California to serve all the needs of the state far into the future; however, California has in the past, and may in the future, have a shortage of water because of the geographical distribution of the state's water supplies.

Almost 75 percent of the State's water runoff occurs north of Sacramento, while 75 percent of the water needs occurs south of Sacramento, primarily in the San Francisco-Oakland and San Jose area, the San Joaquin Valley, and southern California.

California's geographical water supply imbalance is further complicated by the seasonal distribution of rainfall and its corresponding runoff. More precipitation and runoff occurs in the winter and spring, while the greater need occurs in the summer. Some years are very dry, while others are very wet which further complicates the water need and supply problems.

Because of California's precipitation and population distribution, it has been necessary, after developing local supplies, to build major water storage and distribution systems. These systems include:

- o The Hetch-Hetchy Aqueduct, which supplies water to the City of San Francisco and portions of the south San Francisco peninsula and Santa Clara Valley;
- o The Mokelumne Aqueduct, supplying water to the Oakland and east San Francisco area;
- o The Federal Central Valley Project, which primarily supplies water to northern and central California agricultural areas;
- o The Los Angeles Aqueducts (Owens - Mono), supply water to the City of Los Angeles;
- o The Colorado River Aqueduct, supplying water to the southern California coastal plain; and
- o The State Water Project, which supplements water supplies to northern, central, and southern California.

Orange County presently utilizes water delivered from local ground and surface facilities, the Colorado River, State Water Project facilities, and local water reclamation projects. Orange County utilizes over 90 percent of its local resources, is a national leader in water reclamation and conservation, yet must still import 75 percent of its water supply.

Because of projected growth and the anticipated loss of Colorado River entitlements, the County is dependent on future improvements to the regional and state delivery system, particularly the State Water Project, to supply its long-term water needs. (Note: the

Water Resources section of the Resources Element provides additional information regarding long-term water supply and demand.) Improvements in the capacity of County facilities, including reservoirs and regional transmission lines, are also necessary to meet Orange County's needs through the year 2000. The general relationship of these local facilities to the regional and statewide system is discussed below.

Map 2-10 depicts the major state and regional water facilities in California. The systems of particular significance to Orange County are described in the following sections:

1) Regional and Statewide Water Systems

Regional System

Owens-Mono Aqueducts: The first system built to deliver water to the coastal plain from another area was constructed by the City of Los Angeles. This system, known as the first Los Angeles Aqueduct, was built in the early 1900s, and expanded to include a second aqueduct in the early 1970s. These aqueducts import water to the city from the Owens Valley and the Mono Basin. The water imported through these aqueducts originates primarily from the snowpack on the eastern slopes of the Sierra Nevada Mountains.

This project serves the City of Los Angeles with an average of 470,000 (af) of water per year. No major increases are anticipated from this system since the city is presently attempting to protect its existing rights to the Owens-Mono supplies from legal challenges arising from environmental concerns.

State System

Colorado River Aqueduct: The Colorado River Project (CRP) was the second major water delivery system built to serve the coastal plain. This system, owned and operated by MWD, was built during the 1930s, and began operation in 1941. The project begins at Lake Havasu on the Colorado River, and ends at its terminal reservoir, Lake Mathews in Riverside County. From there, the water enters MWD's distribution system and is delivered throughout much of the coastal plain. MWD, at present, is entitled by contract with the federal government to divert 1,212,000 af per year from the Colorado River.



not to scale

NOTE: This map is for informational purposes only and is not a part of this element.

CALIFORNIA WATER SYSTEM FACILITIES

SOURCE: Orange County
Metropolitan Water District

MAP
2-10

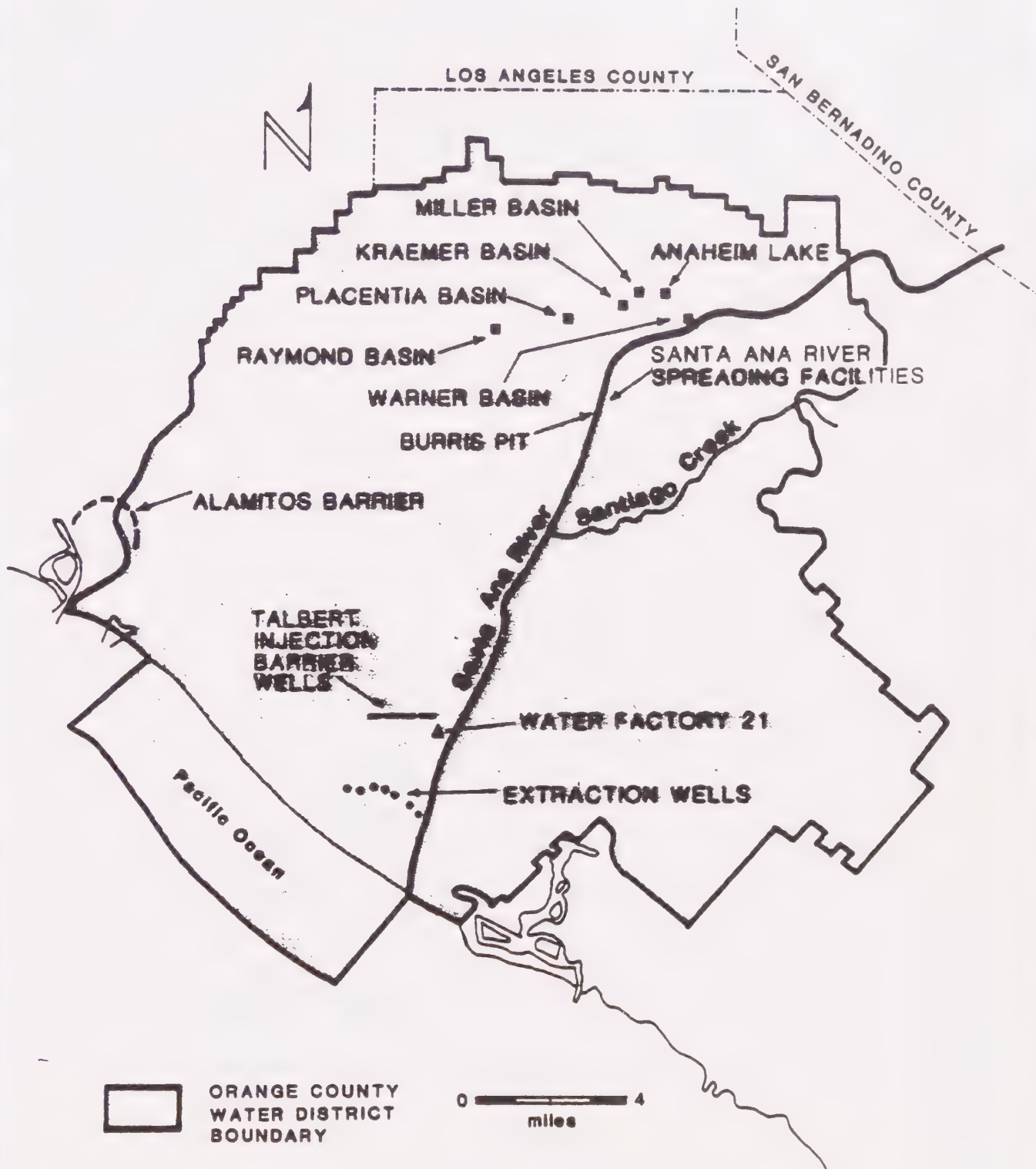
In 1964, the United States Supreme Court issued a decree which settled a long-standing lawsuit filed by the State of Arizona against California. Because of the decree, and subsequent legal claims from Indian tribes along the Colorado River, MWD's entitlement to water from the river will be reduced by more than 50 percent when the Central Arizona Project (a major water system to serve the Phoenix and Tucson areas) becomes fully operational. The Central Arizona Project is anticipated to begin operation in 1986, with full use of the water entitlement to occur by the end of the decade. At that time, MWD will become dependent on the State Water Project facilities to deliver two-thirds of its water requirements.

State Water Project: The State Water Project (SWP) was authorized by the Burns-Porter Act in 1959 and approved by the voters in 1960. This Act authorized the development and diversion of water from the Feather River complex through a Sacramento-San Joaquin Delta facility into an aqueduct to be delivered south to various water agencies. Contracts were signed with 31 agencies to deliver a dependable annual supply of 4.23 million acre-feet (maf) in all but "critical dry years." In critical years, the project will be capable of delivering 3.6 maf with agriculture taking a 50 percent shortage in such a year. This legislation authorized the initial storage, conveyance, pumping, and energy facilities for the project. The Delta Protection Act, also passed in 1959, provides protection to the Delta's unique environment.

The SWP was designed to be built in stages so it could be easily expanded to meet needs when necessary. Currently, the SWP is only capable of delivering about half of the water for which it was contracted to deliver, or about 2.3 maf a year on a "dependable" basis. Shortages of State Project water would affect northern, central, and southern California. Facilities remaining to be constructed include: the North Bay Aqueduct into Napa and Solano Counties, the Coastal Aqueduct into San Luis Obispo and Santa Barbara Counties, Delta transfer facilities, and storage sufficient to yield 4.2 maf/year.

The SWP stores water in Lake Oroville on the Feather River in northern California, about 100 miles north of Sacramento. Water is released from Lake Oroville to flow down the natural channels of the Feather and Sacramento Rivers to the Sacramento-San Joaquin Delta.

The Sacramento-San Joaquin Delta is the hub of California's water wheel. The Delta is formed by the convergence (or adjoining) of the Sacramento, San Joaquin and other smaller rivers. The Delta is located about 60 miles northeast of San Francisco. About half of the water developed by the SWP comes from releases from Lake Oroville and the other half comes from surplus Delta inflow.



NOTE: This map is for informational purposes only and is not a part of this element.

ORANGE COUNTY GROUNDWATER FACILITIES

SOURCE: Orange County
Water District

MAP
2-11

The State Water Project export pumps are located in the southern Delta. The water for exportation travels primarily through Delta channels from north to south. The Delta Pumping Plant then lifts the water into the Governor Edmund G. Brown California Aqueduct for storage in San Luis Reservoir. The water is distributed after further pumping to the State Water Project contractors south of the Delta.

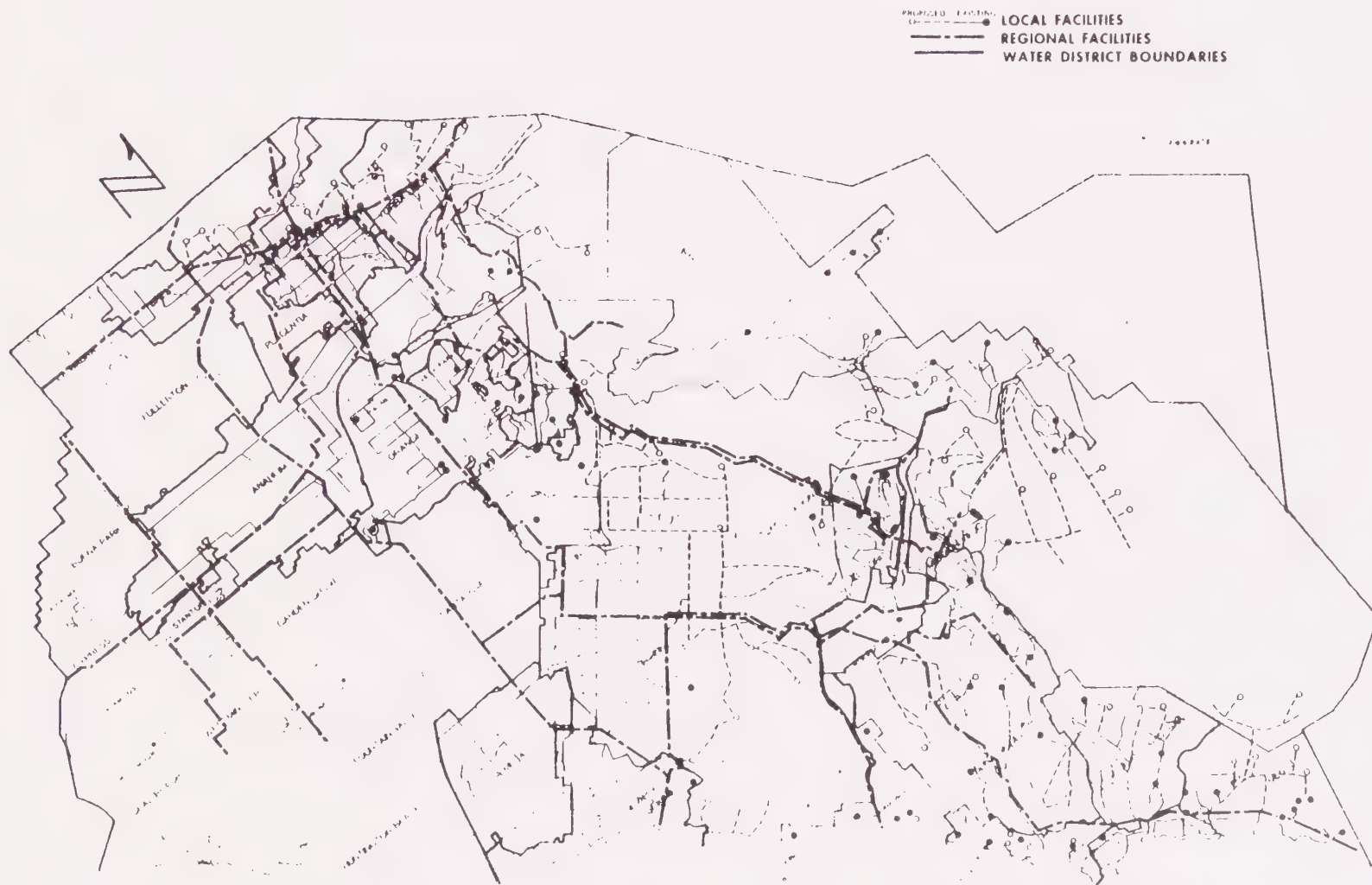
Central Valley Project: The United States Bureau of Reclamation's Central Valley Project (CVP) utilizes the Delta for transfer of Sacramento River flows regulated by upstream storage in Lake Shasta to Delta-Mendota, Contra Costa Canal, San Luis, and San Felipe divisions' contractors south of the Delta. The CVP has a maximum pumping capacity from the Delta of 4,600 cubic feet per second (cfs). The SWP Delta pump facilities also deliver water to CVP through the joint state-federal San Luis facilities.

2) Local System

Before water importation from other areas of the State became necessary, the people in the coastal plain of southern California nearly depleted all locally available water supplies. Only when local supplies could no longer economically meet local water demand did people turn to other source areas. Local water supplies come from three sources: groundwater; surface water captured in reservoirs; and reclaimed water. Today, these local supplies only provide enough water to serve about one-third of the current needs.

Groundwater basins provide by far the largest local source of water. Water pumped from these underground storage reservoirs is replenished by local rainfall and by reclaimed and imported water. However, there is a hydrologic and economic limit to the amount of water that can be pumped. Little additional yield is available as long-term supply from these basins. The existing and planned groundwater facilities for Orange County are described in Map 2-11.

The retail distribution of water in Orange County is handled primarily by 23 independent/dependent special districts 16 of the 26 cities, and mutual/private suppliers, as indicated in Table 2-7. The district boundaries and regional transmission facilities for Orange County are illustrated in Map 2-12.



NOTE: This map is for informational purposes only and is not a part of this element.

The following discussion describes the functions of the various independent special districts involved in the water distribution system:

- o Municipal Water Districts - The main function of a municipal water district is to manage large basins and maintain a water delivery system. These districts are primarily wholesale water agencies, selling water to contracting independent and dependent special districts, cities and other agencies.
- o California Water Districts - These districts were initially created by landowners to serve areas that were predominantly agricultural. Their powers also include domestic water service and the collection and disposal of sewage. Being formed by landowners, their Boards of Directors memberships vary from five to eleven directors. Voting was originally based on one vote for each specified amount of assessed valuation. However, since urbanization, most have converted to a popular vote system.
- o County Water Districts - These districts were created primarily to provide domestic water service to urban and suburban areas. They are formed by the registered voters of the area. Their Boards of Directors memberships vary from five to seven directors who are elected by popular vote and voting is based on a one person/one vote system.
- o Irrigation Districts - The basic purpose of these districts is to furnish water for agricultural uses. They are empowered to supply domestic water to local residents. Their governing body is composed of three to five directors elected at large or by divisions within the district.
- o Orange County Water District - The responsibilities of this district include: management of the groundwater basin; sale of groundwater for domestic use; operation of a wastewater reclamation plant; and the restoration and maintenance of the groundwater supply. The ten member Board of Directors consists of seven elected by division and three appointed by the cities of Santa Ana, Fullerton and Anaheim.

Table 2-7

ORANGE COUNTY WATER DISTRIBUTORS

<u>Independent/ Dependent</u>	<u>Type of Distributor</u>	<u>Number</u>
I	Municipal Water Districts	3
I	California Water Districts	5
I	County Water Districts	11
I	Irrigation Districts	2
I	Orange County Water District	1
D	Orange County Water Works District #8	1
D	Orange County District Water Works #4 (San Juan Capistrano)	<u>1</u>
	Total Special Districts	24
	Cities ⁽¹⁾	<u>16</u>
	Total	<u>40</u>

(¹) Anaheim, Brea, Buena Park, Fountain Valley, Fullerton, Garden Grove, Huntington Beach, La Habra, La Palma, Newport Beach, Orange, Santa Ana, Seal Beach, San Clemente, Tustin, Westminster.

NOTE: This table is for informational purposes only and is not a part of this Element.

c. Future Prospects

- 1) A discussion of existing and projected water system needs is presented in the following two sections. These two sections are generalized presentations of information contained in the annual DMP report and County Water Plan documents. Specific facility needs and improvements are reviewed on an ongoing basis rather than identified in this text. Table 2-8 illustrates the scope and nature of planned facilities for the State/regional and local systems.

As part of Phase III of the PSF work effort, scheduled for completion in 1986, detailed facility improvement and phasing plans will be included in the Component III (Community Profile) documents. These documents will be updated on an annual basis to reflect the most recent planning information available from water agencies.

- 2) State/Regional System

Major water conveyance and storage facilities are required for the State Water Project (SWP) in order to meet future demands placed on that system. Key among these SWP facilities is a through Delta conveyance facility to transfer water from the Delta to the California Aqueduct.

No major improvements to the CRP are foreseen since the facility will be operating below its design capacity due to the reduction of California's entitlement to Colorado River water. An associated facility program are the proposed improvements to the Imperial Valley Irrigation District's system (e.g., lining canals). These physical improvements can enhance utilization of California's existing CRP allocation.

Additional regional improvements required by existing and future County demands include the All River Plan for the Santa Ana River watershed. Although primarily a flood control project, the physical improvements to Prado Dam included in the project increase the water storage capabilities for Orange County Water District.

- 3) Local System

The majority of the necessary large-scale improvements within Orange County are projects to improve existing storage reservoirs and dams or build additional storage facilities in south Orange County. The local water conveyance system will be implemented in conjunction with development phasing to meet the delivery demands in Orange County.

Table 2-8

Planned Water System Improvements

A. STATE/REGIONAL SYSTEM

<u>Project</u>	<u>Implementation</u>
1. State Water Project:	
o Delta Transfer Facility	Long-term
o Off-Stream/Conventional Reservoirs	Near-term and Long-term
2. Imperial Valley Improvements (CRP)	Near-term
3. All River Plan (Santa Ana River)	Long-term

B. LOCAL SYSTEM

<u>Project</u>	<u>Implementation</u>
1. Water District Distribution Systems	Ongoing
2. Additional South County Storage Projects	Near-term and Long-term
3. Improve Existing Dams and Reservoirs (e.g., Santiago Dam)	Near-term

4. Wastewater System

a. Introduction

The populace of Orange County is supported by many complex infrastructure systems, one of which is wastewater collection, treatment and disposal facilities. The County's past ability to expand treatment capacities in an incremental fashion, as well as to construct new facilities where needed, has facilitated its rapid growth.

Insufficiencies in wastewater treatment capacity could seriously affect the County's ability to accommodate forecasted growth levels while it is concurrently striving to attain water quality goals. In the future, a major roadblock to achieving this balance may well lie in the ability of local governments and wastewater management agencies to finance the construction of sewage treatment and collection facilities. With cutbacks in both the federal share and amount of funding for such projects, this ability to accommodate expected growth through traditional funding sources could be curtailed.

b. Description of County Wastewater System

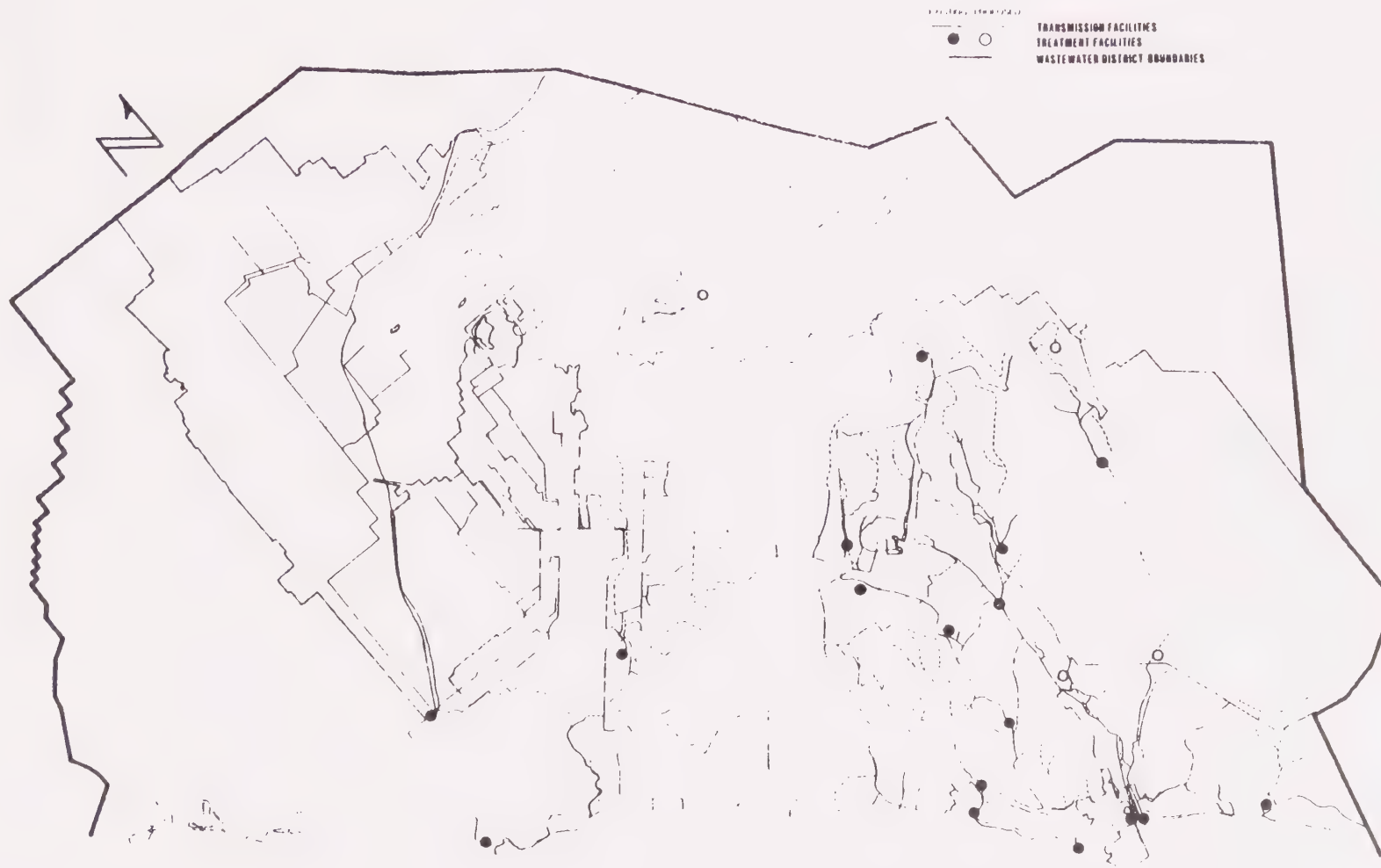
The collection, treatment, and disposal of wastewater in Orange County is undertaken by special districts and local governments. In order to understand the County's system, it is essential to recognize the principle service agencies and physical systems within the County, as well as the administrative/regulatory environment in which they operate.

1. County Wastewater Agencies

The Orange County Sanitation Districts collect and treat wastewater for the northern and central areas of Orange County. There are seven districts which presently serve 23 cities in the county, plus unincorporated areas within the Districts' boundaries. The Districts' facilities collect the sewage from the local cities, sanitary districts, county water districts, and sewer maintenance districts. Wastewater is then transported through the Districts' trunk sewers to the two major treatment facilities jointly owned by the Districts. Major regional facilities are shown in Map 2-13.

In the south County, there are two joint powers agencies which coordinate the provision of sanitation service, the Aliso Water Management Agency (AWMA) and the South East Regional Reclamation Authority (SERRA). The local entities participating in these two agencies are listed on Table 2-9.

Irvine Ranch Water District (IRWD) entered AWMA to provide sewer service for the proposed coastal development within its service area. At the time of AWMA's formation (and up to the present), five of the seven participating agencies were operating separate



NOTE: This map is for informational purposes only and is not a part of this element.

ORANGE COUNTY WASTEWATER DISTRICTS

SOURCE: Orange County

MAP
2-13

Table 2-9

Joint-Powers Wastewater
Agencies in Orange County

A. AWMA Members:

1. City of Laguna Beach
2. El Toro Water District
3. Emerald Bay Service District
4. Los Alisos Water District
5. Moulton-Niguel Water District
6. South Coast County Water District
7. Irvine Ranch Water District

B. SERRA Members:

1. City of San Juan Capistrano
2. Capistrano Beach Sanitary District
3. Dana Point Sanitary District
4. Moulton-Niguel Water District
5. Santa Margarita Water District
6. City of San Clemente

NOTE: This table is for informational purposes only and is not a part of this Element.

and independent collection and treatment facilities. At the present time, AWMA provides an ocean outfall to all of its member agencies.

State and federal regulatory agencies have issued grants to promote consolidation of the member agencies to the greatest extent possible, thus centralizing the treatment processes and eliminating the existing short, shallow ocean outfalls. Many advantages result from modern regionalized facilities: 1) less land area is encumbered with the elimination of multiple treatment plant sites; 2) more effective treatment equipment results in less pollution emissions; and, 3) a longer, deeper ocean outfall enhances the water quality of the near shore. Member agencies also realize cost savings due to economies of scale which are passed on to the user.

SERRA is comprised of member agencies that maintain local wastewater collection systems. As the population of the south County grew, so the sewage collection system grew, and agencies began sharing facilities. A final link in the early consolidation process occurred in 1970 when San Juan Capistrano agreed to accept wastewater from the Moulton Niguel and Santa Margarita Water Districts for treatment in San Juan Capistrano's wastewater treatment plant. With the various local systems interconnected, formation of a cooperative regional agency was logical, and SERRA was formed in 1970 as a joint powers agency.

Since SERRA's formation, San Juan Capistrano's treatment plant has been expanded and converted into a regional facility owned by SERRA. Not all SERRA agencies use the regional treatment plant facility. Sharing in the regional facility are the Dana Point Sanitary District, the City of San Juan Capistrano, the Moulton Niguel and Santa Margarita Water Districts. San Clemente and the Capistrano Beach Sanitary District have their own plants. The interceptor sewer and treatment plants are shared by most SERRA members and an ocean outfall is used by all six agencies.

Since not all facilities in the region benefit every AWMA or SERRA member, the member agencies only participate according to their needs, and only pay their share of the costs. Financing additional projects is done through the collection of funds from participating member agencies. AWMA and SERRA are financed by local user fees, developer contributions, and state and federal grants.

The existing capacities for all four major county agencies are described on Table 2-10.

Table 2-10

Major Wastewater Treatment Agencies
(1980)

Agencies/Facilities	Population Served (000)	Unsewered Population(a) in Service Area (000)	Average Per Capita Flow (qpcd)	Average Flow (MGD)	1980 Capacity (MGD)	Total Existing and Committed Capacity (MGD)
<u>Orange County</u>						
1. County Sanitation Districts of Orange County	1,604.9	16.2	125	215.0	184.0(b)	399.0(c)
2. Aliso Water Management Agency (AWMA)	106.2	—	106	11.2	17.7	28.9(d)
3. Southeast Regional Reclamation Agency (SERRA)	124.5	--	100	12.7	20.5	33.2
4. Irvine Ranch Water District	75.0	--	108	8.5	15.0	23.5(d)
TOTAL	1,910.6	16.2	122	247.4(e)	237.2	304.4
TOTAL COUNTY POPULATION	1,931.6					

Sources: Southern California Association of Governments, Draft Environmental Impact Report on Draft SCAG-82 Growth Forecast Policy, April 1982. Vol. 3, June 1980. Wastewater Treatment Agencies. Wastewater System.

- The amount of population that is unsewered within the service area is included if known; this population is in addition to the population served.
- Although flow exceeds design capacity, the plant is meeting NPDES waste discharge requirements. Primary treatment capacity is 184 MGD, while secondary treatment capacity is 50 MGD.
- Forty MGD of primary, and 75 MGD of secondary treatment capacity to be added in next two years, bringing total capacity to 224 MGD of primary capacity and 125 MGD of secondary capacity.
- Additional treatment capacity to be provided in 1984/85 through bonds and connection fees.
- Year 2000 Projected Daily Flow is estimated to be 325.4 MGD.

NOTE: This table is for informational purposes only and is not a part of this Element.

2. Local Sewer Service

Sewer hook-up, collection, and maintenance of smaller sewer lines in north and central Orange County are provided by sanitary districts, cities and sewer maintenance districts. South Orange County receives a similar service from sanitary districts, Irvine Ranch Water District or the respective member agencies of AWMA or SERRA.

Collection is performed separately from treatment and disposal because smaller entities such as cities and sanitary or water districts are better able to provide the individual sewer permit and sewer hookup functions. Treatment and disposal is best provided on a large scale to eliminate the need for separate costly treatment and disposal facilities.

Sanitary districts were originally formed to serve unincorporated areas. When incorporation occurs the sewer services are typically assumed by the newly formed city. Four of the six sanitary districts still operate in unincorporated areas of the county - Capistrano Beach, Dana Point, Sunset Beach, and Midway City which serves the unincorporated area of Midway City as well as the City of Westminster and part of the City of Garden Grove. The remaining two sanitary districts, Garden Grove and Costa Mesa Sanitary Districts, serve cities and unincorporated areas outside their city limits.

There are three sewer maintenance districts, the 3rd, 7th and 70th, that contract with the Sanitation Districts for sewer maintenance and administrative services for facilities within their jurisdiction. The sewer maintenance districts were formed as an alternative to forming sanitary districts for the three small unincorporated areas which they serve.

Cities, sanitary districts and water districts have the statutory authority to provide sewer service. The cities' governing bodies are their city councils; the sanitary and water districts' governing bodies are independent boards of directors. Authority for sewer services in unincorporated areas not served by sanitary or water districts rests with the Board of Supervisors.

The funding for sewer services is provided by property taxes, augmentation funds, user fees or investment income from reserves.

c. Future Prospects

Recent trends in wastewater management include: 1) upgrading the region's treatment levels to secondary, and in some cases tertiary, treatment to meet federal and state discharge effluent requirements; 2) prohibition on the ocean disposal of sewage sludge; 3) increased emphasis in the urban coastal plain on treating wastewater nearer to its source through the development of upstream reclamation plants, and on

reuse of reclaimed water for groundwater replenishment, industrial use, and landscape irrigation; and 4) treatment plant capacity expansions to serve additional population growth. Most recently, there have been major reductions in federal grant funds available for assisting local governments in the upgrading and expansion of sewage treatment facilities. These reductions could jeopardize future upgrading or expansion of facilities unless increased local funding can be generated in the form of bonds, special assessment district taxes, or other funding mechanisms.

An estimate of the impact of the adopted growth projections was made by comparing, for each agency, the total population of major wastewater facility areas, their associated projected wastewater flows, and wastewater treatment capacities. These flows and capacities are shown on Table 2-10 and are based upon the SCAG '82 Growth Forecast EIR data with adjustments for new population figures for Orange County.

Wastewater treatment capacities were indicated for two baseline cases - 1980 or present capacity, and expected year 2000 capacity--both of which were compiled from wastewater management agencies. Most wastewater management agencies have long-range plans which address needed plant expansion/upgrading, based on anticipated population growth within their service areas. However, with reductions in federal and state construction grants programs, and uncertainties surrounding local financing mechanisms, the future funding of some planned expansions remains uncertain. For this reason the year 2000 baseline only includes those treatment capacity expansion projects that are under construction or committed to in the near future through secured funding. Additional facility expansion efforts are underway to provide capacity beyond the year 2000 baseline.

In regard to countywide wastewater capacity, the long-range implications of system demands and capacity issues have been the subject of several County studies. In 1966, the County completed a comprehensive wastewater master plan which addressed the countywide needs through the year 2000. In addition, the 1980-81 County Grand Jury recommended, and the Board of Supervisors concurred with, the concept of a County Water Plan for both water and wastewater systems. To date, the County Water Plan effort has focused on water supply issues. However, in response to the Grand Jury recommendations and the outdated information in the 1966 wastewater study, a County Wastewater Study is included as an implementation program in Chapter Eight, the Wastewater Component. The objective of this study is to synthesize and update existing wastewater plans/studies in order to provide a useful resource documentation on countywide wastewater issues.

5. Transportation System

a. Introduction

Orange County has an integrated transportation system which consists of a blend of transportation modes intended to satisfy the needs of a population that has a lifestyle typified by a high degree of mobility. The demand for movement of people, goods and services is met by private

and public means with the service emphasis on maximum efficiency, convenience, economy, safety and comfort. Transportation facilities which respond to the needs of Orange County citizens include state freeways and highways, local arterial highways, bikeways, transit, rail (freight and commuter) and aviation (military, commercial and general aviation). The County of Orange is not directly responsible for the planning and implementation of all of the various facilities mentioned above but is affected by and cooperates with various federal, state, regional and countywide agencies including: Federal Highway Administration Department of Transportation, Mass Transportation Agency, State of California Department of Transportation - CalTrans, Southern California Association of Governments, South Coast Air Quality Management District, Orange County Transportation Commission, Orange County Transit District and various municipalities. The County of Orange routinely interacts with agencies that develop freeways and provide transit service in order to assist and support them in their planning and implementation efforts.

b. Description of County Transportation System

The majority of travel trips in Orange county are made by automobile, using the extensive network of freeways and arterial highways. Transit service is also an important mode of transportation in the more urban areas of the County. Transit provides mobility to many individuals in the County who depend on it for traveling to work and school, and for other important travel needs. A small fraction of the trips are made utilizing other modes of transportation such as air, intercity rail, bicycling and walking.

The current transportation conditions are directly related to a combination of economic events and social changes that have occurred over the last four decades. Orange County has grown from a collection of small cities with an agrarian economic base to an area with various centers of economic activity and a large and affluent population. The rapid growth in employment and population has increased the number of trips made on the freeway and arterial highway systems. This intense travel demand has impacted levels of service on significant portions of the system, causing severe congestion and low travel speeds during peak hours.

1) Freeway and Expressway System

The State Freeway and Expressway System shown on Map 2-14 illustrates the existing and proposed freeway/expressway system in Orange county. As can be seen, a number of proposed freeways and expressways have not been constructed. In 1972, the Pacific Coast Freeway (Route 1) was removed from the State Freeway and Expressway System. However, during the same decade the State legislature added the Corona del Mar Freeway (Route 73) to the state system. Removal of the Pacific Coast Freeway from the planned freeway system and failure to implement other planned freeways has seriously impaired the traffic carrying capabilities of the surface transportation system in Orange County.

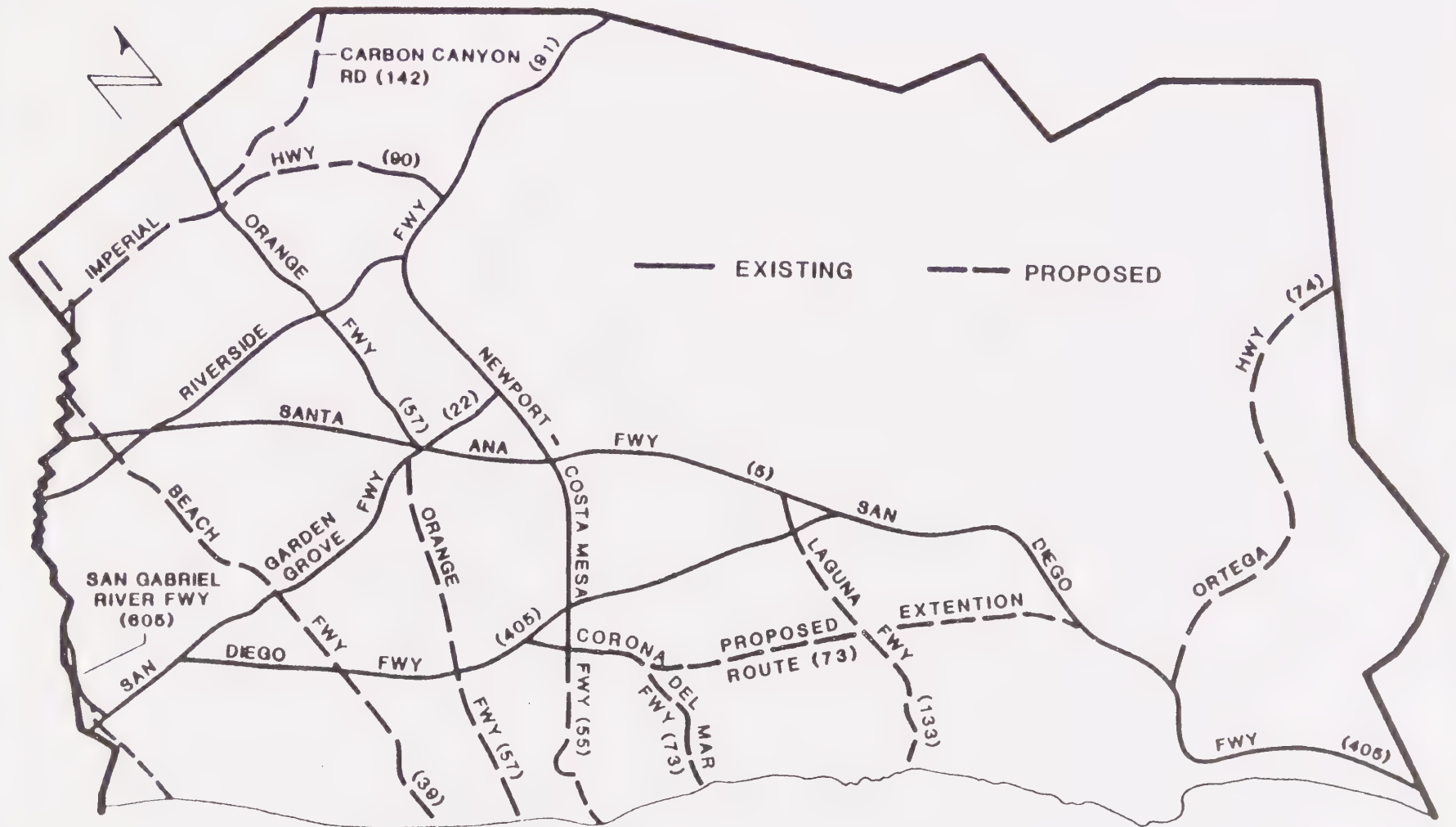
The existing 160 miles of Orange County's freeway system is becoming deficient both structurally and in its ability to accommodate current travel demand. Some of the freeways and expressways were built as inter-county connectors, designed to serve a low density rural region, rather than a highly urbanized population. Others are carrying heavier vehicle traffic than that for which they were designed. Age is another major reason for the inadequacy and deterioration of the freeway system.

2) Arterial Highways

The arterial highway system is intended to support and serve existing and adopted land uses within both incorporated and unincorporated areas of the county. (See Map 2-15.) It is designed to be part of a balanced transportation system. The arterial system provides for both the through movement of traffic and as a collector for travel between freeways and other arterial highways. Major and primary arterial highways are intended to handle the bulk of intra-regional traffic. They complement both the freeway system and the local street network. Secondary arterials and commuters serve as collectors funneling traffic from local streets to the primary and major arterial system.

As congestion continues to increase on the freeway system, more drivers utilize the arterial system, particularly those parallel to freeways, or those arterials serving the same trip destination as the freeways. Consequently, some parallel arterials, particularly the north/south ones, are becoming increasingly congested. This situation is of special concern on those arterials which provide access to the freeway system.

Portions of the County's highway system have neither been improved to its ultimate classification, nor been constructed. Reasons for this situation include: 1) surrounding areas remain undeveloped; 2) public funding is unavailable; and, 3) need for the road has not yet been established. Such situations have diminished the efficiency and effectiveness of the system because the burden of servicing additional travel demand is placed on other links of the network. Accordingly, this results in increased travel times and distances.



NOTE: This map is for informational purposes only and is not a part of this element.



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3) Transit Service

Transit service in Orange County is provided by a number of public transit agencies and private carriers. Regional service is primarily provided by the Southern California Rapid Transit District (which links Orange and Los Angeles Counties) and by AMTRAK, Greyhound, and Continental Trailways serving San Diego, Orange and Los Angeles Counties. Orange County Transit District (OCTD) provides public transit service within Orange County and to adjacent sections of Los Angeles and Riverside Counties. The vast majority of all transit trips in Orange County are carried on OCTD buses. Additional local service is provided by the Laguna Beach Municipal Transit Lines.

OCTD provides a wide variety of public transportation services tailored to the needs of county residents, including local fixed route, freeway express, Dial-A-Ride and ridesharing. The service structure includes over 50 routes covering about 1,500 miles of streets, bringing regularly scheduled buses within one-half mile of 95 percent of the residents in the county. In addition, door-to-door Dial-A-Ride service is available throughout the county. OCTD programs encourage greater efficiencies in travel in all aspects, with carpool matching and promotional programs, involvement in commuter rail programs, and other traffic management efforts.

OCTD serves the mobility needs of the resident population for which the automobile is not available. The District's clientele includes the elderly, the handicapped, the poor, the young, and other residents for which automobile travel is not available. In the twelve years that buses have operated in the county, annual ridership has grown from 1 million to over 38 million. OCTD is a major mode of transportation to work. Over 40 percent (15 million) of the annual ridership uses transit to work.

The County does not have direct jurisdiction over the Orange County Transit District. The County does, however, recognize that its decisions relating to the planning and development of land uses and the arterial highway system significantly affect the efficiency of the transit system. The County's objective in the area of transit service is to encourage land use development in a manner that will facilitate transit operation and alleviate highway congestion, energy consumption and air quality problems.

4) Air Travel - John Wayne Airport

John Wayne Airport (JWA) is the only commercial service airport in Orange County. It is served by six commercial air carriers and three commuter airlines. In 1983, approximately 2.8 million passengers used the airport. JWA also serves as the home base for more than 970 personal and business ("general aviation") aircraft.

John Wayne Airport is approximately 504 acres in size. This consists of 444 acres of primary airport area (that property lying between the Corona del Mar and San Diego Freeways); 33 acres of clear zone lying south of the Corona del Mar Freeway; and 27 acres lying north of the San Diego Freeway.

A majority of the area surrounding the airport is within the Cities of Newport Beach, Costa Mesa, Santa Ana, Tustin, and Irvine. The remainder consists of the unincorporated community of Santa Ana Heights which is approximately 700 acres within the County of Orange.

John Wayne Airport has two parallel runways, one 5,700 feet long and a shorter runway serving general aviation that is 2,900 feet long. These runways are oriented almost north/south. The prevailing winds in the area are from the ocean. Consequently, most of the landings and takeoffs at JWA are conducted in a southerly direction (into the winds). Almost 98 percent of the takeoffs and landings are in this direction. Unfortunately, many residences lie under or near the departure flight paths.

In 1960 there were 12,441 passengers enplaned at JWA. In 1970 the total exceeded 871,350. The demand for air service continued to increase, and by the late 1970s, it exceeded 2.5 million. It has remained around this number since that time--not because the demand has leveled off, but because the number of commercial air carrier flights has been frozen at 41. Average Daily Departures (ADD) and because the terminal is so crowded that only enplaning passengers can use the facility (deplaning passengers walk around it).

It is estimated that the current level of demand for service exceeds 7.0 million. Those passengers not served at John Wayne obtained air service from airports outside the County. Estimates for the year 2000 indicate that almost 20.0 million total passengers will be generated by the population of the County. Also, within Orange County there are more than 2,600 aircraft registered to personal and corporate owners; yet there are only two other airports for these type aircraft within the County--Fullerton Municipal with 590 based aircraft, and the privately owned Meadowlark Airport (planned to be closed) with approximately 300 aircraft. No other general aviation aircraft are located at airports inside the County.

The pressure for increased capacity at John Wayne Airport to better serve the air transportation needs of the County's citizens has been manifest, but it has been countered by pressures to relieve or curtail the environmental consequences of the airport's operation. Aircraft noise, aircraft related air pollution, traffic congestion, parking congestion, and incompatible adjacent land uses have long been issues of concern. Solutions, or potential solutions, to this problem are currently being studied under the guidance of the Board of Supervisors.

c. Future Prospects

1) System Service Levels

a) Freeway System and Arterial Highway System

Surface transportation problems in Orange County stem primarily from the inadequate capacity of the freeway system to serve peak hour travel demands. Problems associated with excessive travel demand and the resultant congestion on Orange County's freeways and arterial highways include decreased average speeds, increased commuting time, increased emissions of air pollutants, and increased per mile fuel consumption.

In order to evaluate the freeway and arterial highways needed to serve current and future traffic, certain criteria are used regarding roadway capacities. The concept of capacity and the relationship between capacity and travel demand is expressed by means of levels of service. These recognize that while there is an absolute limit to the amount of traffic that can travel through a given corridor (the "capacity") at any given time, conditions rapidly deteriorate as traffic approaches that level. Congested conditions are experienced at 90 percent or more of the appropriate capacity figure. There is general instability in the traffic flow and small disruptions can cause considerable fluctuations in speeds and delay.

Levels of Service are, in increasing order of congestion, defined as "A" through "F". Beyond Level of Service "E", capacity has been exceeded, and arriving traffic will exceed the ability of a given freeway or street to process it efficiently. A description of the meaning of the six Levels of Service (LOS) follows:

<u>Level of Service</u>	<u>Description</u>
A	no physical restriction on operating speeds.
B	stable flow with few restrictions on operating speed.
C	stable flow, higher volume, and more restrictions on speed and lane changing.
D	approaching unstable flow, little freedom to maneuver.
E	unstable flow, lower operating speeds than LOS D some momentary stoppages.
F	forced flow operation at low speeds where the highway acts as a storage area and there are many stoppages.

The objective of the County when planning the arterial system is to use LOS "C" for link capacities. (A link is the portion of the roadway between two intersections.) The level of service at intersections will invariably be lower since intersection capacities usually control overall roadway capacities. It is, however, a County objective to maintain LOS "D" through intersections.

The following discussion of future (1985-2000) traffic conditions is a generalized presentation of information contained in the 1983-84 DMP report and the Transportation Element.

1985

The traffic conditions expected in 1985 are slightly worse than current conditions. The reason is that moderate growth will likely continue through 1985, but no significant new facilities are anticipated to be built. This will result in further deterioration of the levels of service through areas already experiencing congestion. Meanwhile, facilities that are borderline presently will become congested by 1985.

Many of the freeways that serve Orange County will operate at LOS "E" and "F" throughout much of the County. These include the Newport Freeway, the Riverside Freeway, the San Diego Freeway, and the Santa Ana Freeway. In addition, some arterials which parallel freeways, and those which serve in lieu of planned, but unbuilt portions of the freeway system, will be congested.

1990

One of the most significant circulation improvements benefiting the entire County can be expected to be complete in 1990. It will entail the partial reconstruction of the Santa Ana/Newport-Costa Mesa Freeway interchange. This project will provide additional capacity to the freeway as well as major operational improvements to the freeway-to-freeway connectors and interchanges with the arterial system. Other improvements and roadway construction are expected to occur in both the south and north County including the widening of existing facilities and the establishment of preliminary phase of both the Foothill and San Joaquin Hills Corridors.

However, the principal areas of congestion by 1990 will again be the freeways. Almost all the freeways will experience LOS "D" or worse. In addition, heavy freeway congestion will continue to divert trips which would normally be on the freeways to adjacent arterials. This situation will result primarily because travel demand in Orange and the surrounding counties is expected to surpass the increased capacity of the freeway and arterial systems.

1995

The traffic conditions on the County's freeways and arterials are expected to significantly deteriorate by 1995. This situation is anticipated to occur despite the assumption that planned facilities in both the north and south County will be built. The County's freeways will still be operating at LOS "E" and LOS "F" throughout parts of the County. The arterial highway system is expected to experience severe congestion ranging from LOS "D" and LOS "E" in the south County to LOS "F" in parts of the northern and northeastern section of the County during peak periods.

2000

The roadway assumptions made for the year 2000 reflect an almost complete buildout of the Master Plan of Arterial Highways as it is planned today. By 2000, the freeways and transportation corridors should greatly increase north-south and northwest to southeast carrying capacity.

Traffic conditions for the year 2000 are expected to be an improvement over 1995. Completed Eastern, Foothill and San Joaquin Hills (future State Route 73 extension) Transportation Corridors are expected to provide reasonable levels of service to County residents. The three corridors will relieve arterial highway congestion which is projected to be severe by 1995.

2) Future Transit Programs

OCTD's role in providing mobility to County residents for whom the automobile is not available will continue to grow in the future, as the County's population grows and land-use and economic patterns shift. The District currently operates from revenues obtained from local, state, and federal grant sources as well as revenues collected from passenger fares. The chief issue concerning public transportation needs in the future likely will be financial--how to maintain service levels and affordable fares for the "transit dependent" community in an era of diminishing financial resources for transit.

The OCTD anticipates the emergence of commuting as a second major role for transit in the next two decades. Studies of traffic conditions on County freeways demonstrate that congestion and slow speeds will affect growing numbers of commuters during peak periods every day in the future. The OCTD has identified a future need for major transit investments which can offer commuters alternative faster ways to travel in more efficient transit and carpool vehicles than can be offered on the freeways in general purpose traffic lanes.

Table 2-11
Planned Transportation System Improvements

A. <u>FUTURE FACILITIES</u>	
<u>Project</u>	<u>Implementation</u>
1. San Joaquin Hills Corridor	Long-term (a)
- 6 to 10 lane facility	
2. Foothill Transportation Corridor	Long-term
- 6 to 10 lane facility	
3. Eastern Transportation Corridor (ETC)	Long-term
- 8 to 10 lane facility (width to be determined by ETC Route Location Study)	

B. <u>EXISTING FACILITIES</u>	
<u>Project</u> (c)	<u>Implementation</u>
1. San Diego Freeway	Short-term (b)
- Widen from 8 lanes to 10 lanes (limits from San Gabriel (605) Freeway to Santa Ana (5) Freeway)	
2. Santa Ana Freeway	Short-term
- Widen from 6 lanes to full standard 8 lanes (limits from San Gabriel (605) Freeway to San Diego (405) Freeway)	
3. Newport Freeway	Short-term
- Widen from 6 lanes to 8 lanes (d) (limits from Riverside (91) Freeway to San Diego (405) Freeway)	

(a) Long-term refers to projects that will not be completed, but may have begun construction within the next ten years.

(b) Short-term refers to projects that will be completed within the next ten years.

(c) Existing facilities listed above will each receive two additional lanes.

(d) In short-term, road will be restriped to provide auxiliary lanes. In long-term, full standard lanes will be constructed.

NOTE: This table is for informational purposes only and is not a part of this Element.

The OCTD, drawing upon its responsibilities for transit and ridesharing, is planning the development of exclusive high-occupancy vehicle lanes to speed transit riders and carpools around regularly congested freeway bottlenecks to work. Working with CalTrans and the County of Orange, these lanes can be retro-fitted within existing freeway rights-of-way, and can tap a variety of capital fund sources with slight on-going operating cost commitments.

Ultimately, the OCTD foresees the possible need for higher capacity rail transit systems, involving the conversion of busways, triggered by heavy usage of freeway high occupancy vehicle (HOV) lanes and intensification of development within the county's employment centers.

3) Air Transportation

The future of air system service in Orange County is under study. The environmental and demand/capacity issue is not as yet resolved to the satisfaction of those involved. Whether the number of flights will be increased, the physical plant altered, or other proposed actions initiated, will be decided by the Board of Supervisors.

d. Implementation Issues

It can no longer be expected that transportation facilities which require large capital investment can be fully funded from the traditional revenue sources used to construct Southern California existing freeway and arterial highway systems. Supplemental funding sources must therefore be developed if County residents are to be provided with facilities which have been included in the various master plans of OCTC, OCTD, County of Orange and CalTrans. These master plans do not discuss the funding and phasing issues which often delay or complicate effective implementation of facilities which are necessary to provide relief to existing and projected congested facilities and to support orderly development within cities and unincorporated areas.

1) Funding Sources

The County Board of Supervisors in considering potential funding sources has directed that the CAO develop a Comprehensive Public Facilities Financing Program. The Program is intended to integrate intermediate and long-term funding requirements and revenue sources for the construction, operation and maintenance of County public facilities into a comprehensive program which will enable the County to meet its future needs in the most cost-effective and resource-conserving manner. Funding options under consideration for transportation facilities, in addition to Road Fund Revenue, include developer fees, Assessment District financing, Mello-Roos Community Facilities District financing, other County funds, and increased motor vehicle fuel sales tax and private resources.

a) Major Thoroughfare and Bridge Fee Programs

Major thoroughfare and bridge fee programs have been under consideration by the Board of Supervisors for some time. Road fee programs are developed based on the assumption that those who will benefit from the road should pay for their fair share of the costs of the road construction. An area of benefit (AOB) is a specified area wherein it has been determined that the real property located therein will benefit from the construction of a major thoroughfare or bridge project.

Authority for establishing major thoroughfare and bridge fees may be found in the Government Code (Subdivision Map Act) Section 66484 and Orange County Codified Ordinances Section 7-9-316, as follows:

"A subdivider, as a condition of approval of a final or parcel map, or a building permit applicant, as a condition of issuance of a building permit, shall pay a fee as hereinafter established to defray the costs of constructing bridges over waterways, railways, freeways and canyons, or constructing major thoroughfares."

The term 'major thoroughfare' means those roads designated as transportation corridors, major, primary, secondary or commuter highways on the Master Plan of Arterial Highways found in the Transportation Element of the General Plan.

The Board of Supervisors has adopted two arterial major thoroughfare and bridge fee programs: a) Plano Trabuco area, b) El Toro Road; and, on October 3, 1984, the Board of Supervisors adopted fee programs for the Foothill/Eastern Transportation Corridors and the San Joaquin Hills Transportation Corridor.

b) Benefit Assessments

Benefit assessments are a funding mechanism whereby costs associated with an improvement, which benefits and increases the value of properties within the designated assessment area, are imposed as liens against the benefited property. Authorization for these assessments is contained in a variety of statutes and generally permits the maintenance of improvements as well as their construction.

The Mello-Roos Community Facilities Act¹ provides an alternative funding method to finance the construction and/or rehabilitation of infrastructure and facilities by the imposition of a "special advancement and/or contribution of funds by the local agency and issuance of bonds secured by the special tax."

¹ Mello-Roos Community Facilities Act of 1982, Assembly Bill number 3564/Senate Bill Number 2001, which became effective on February 2, 1983. (California Government Code Sections 53311-53365.5).

Mello-Roos is adaptable to project phasing and can be used as an alternative to, or in combination with, other funding methods.

c) Other

Additional sources of revenue can be generated through direct user fees (e.g., increased sales tax on motor fuel, increased transit fares).

2) Phasing

One of the first objectives of the PSF Element is to provide a framework which identifies and provides expanded coordination and planning of public services and facilities. The goal is to achieve a plan which will insure the proper phasing of public facilities both at the system wide and Community Profile level. Phasing is particularly important in the area of transportation because of the substantial capital investment costs involved in the construction, operation and maintenance of transportation facilities. The emphasis of phasing efforts, however, should be on providing facilities to meet demand, even though funding will continue to be a constraint on the ability to do so. Transportation system management efforts will necessarily include phasing as a tool especially in the areas of traffic signal coordination, road widening and restriping. On a regional level, the linking of transportation facilities with new development projects is an example of the phasing of transportation facilities to the needs of County residents. Other phasing mechanisms will be developed during phase II and Phase III of the work program.

6. Community Facilities

a. Orange County Fire Department

- 1) Introduction: The Orange County Fire Department provides structural fire protection, paramedic and rescue services to the unincorporated areas of Orange County plus ten cities. Small areas within three additional cities receive some services from the Orange County Fire Department. The Department also provides crash/fire/rescue protection at John Wayne Airport, and watershed fire protection, forestry services, and hazardous material protection for Orange County. In addition to these fire suppression and emergency services, the Orange County Fire Department provides fire prevention services. These duties are the responsibility of the Department's Support Bureau and including regular inspections of public assemblies and hazardous materials and operations pursuant to the Uniform Fire Code. Fire prevention services also include implementation of the hazard reduction program and the wildland fire defense improvement program, including weed abatement. Also, all fire prevention and suppression education and public relations

programs, including fire prevention education for all fifth grade students, and coordination of the company inspection program are responsibilities of the Support Bureau of the Orange County Fire Department.

The Orange County Fire Department receives property tax revenue, its primary source of funding other than Special District Augmentation Funding, through the Structural Fire Fund. A portion of the property tax revenue generated in the unincorporated areas and in the cities of Cypress, Irvine, La Palma, Los Alamitos, San Juan Capistrano, Villa Park, and Yorba Linda is allocated to the Structural Fire Fund. The Orange County Fire Department also receives revenue via direct cash payments from individual cities for providing fire protection and paramedic services to the cities of Placentia, Seal Beach, and Tustin. In addition, the Department receives cash payments for automatic aid agreements to provide services to a small portion of Newport Beach and Stanton. The Orange County Fire Department has mutual/automatic aid agreements with other city fire departments and the California Department of Forestry in order to assure that calls for service are answered by the fire station that can most rapidly respond.

- 2) Background: For the 48 years prior to 1980, the administration of the Orange County Fire Department was provided on a contractual basis by the California Department of Forestry. Fire suppression operations were carried out by a combination of State firefighters and paid-call (volunteer) firefighters. Cancellation of this system was proposed in 1979 because the Department of Forestry is primarily a wildland firefighting agency. The rapid growth in the southern and eastern portions of Orange County had transformed the region from a predominately wildland area to an increasingly urban one.

In 1980, the Department of Forestry terminated its contract with Orange County, and the responsibility for local fire protection was transferred to the County. At that time, the County Fire Department began administering and providing structural and wildland fire protection and paramedic services to its entire service area. The California Department of Forestry retained fire protection jurisdiction over the Cleveland National Forest; however, the Department of Forestry maintains a contract with the County Fire Department for protection in that area.

The Orange County Fire Department was one of the first agencies in Orange County to provide paramedic services. The California Department of Forestry, under contract to the County Fire Department, began providing paramedic services in 1973 when a paramedic unit was installed in Laguna Hills.

- 3) Fire Protection in the Urban/Open Space Interface: The Orange County Fire Department service area includes many thousands of acres of wildlands subject to periodic fires which endanger nearby urban areas. Wildlands are described as those areas

having grass, brush and trees without significant numbers of structures. In Southern California, wildlands are typically characterized by highly flammable chaparral. In a wildland fire, the County Fire Department is faced not only with the problem of burning chaparral, grasslands, and scattered structures, but also with the danger of the wildland fire entering the urban areas. Although the southern and eastern portions of Orange County are experiencing rapid urban development, the suppression of wildland fires is still a significant problem in those areas; in fact, it has been compounded by the encroachment of urban development into the foothill areas. The Safety Element of the Orange County General Plan categorizes the wildland areas of the County into three Fire Hazard Zones: moderate, high and extreme. The developer of any subdivision located in a fire hazard area is required to provide appropriate wildland fire defense systems by means of firebreaks, fuel modification programs, access roads, sufficient water supply, sprinkler systems, landscaping of open spaces and any other methods determined by the Fire Warden to be necessary to insure public health, safety and welfare.

- 4) Current Conditions: Currently, approximately 29,000 calls for service are received annually by the Orange County Fire Department's 36 permanent and 5 temporary fire stations. The average number of calls received by all stations is 700 per year. Over 61 percent of all Fire Department responses are to emergency medical treatment calls. Fires constitute 9 percent of all calls, hazardous conditions make up 4 percent, and all other calls, including service calls, account for the remaining 26 percent. Although the average number of calls received by the 11 fire stations with paramedic units is twice that of all stations, Fire Station #22, located near the Leisure World retirement community, receives over five times the average number of calls per year, mostly for emergency medical services. While this station responds to an inordinate number of calls, the level of service provided is considered satisfactory.

All other fire stations in the Orange County Fire Department's service area are currently providing an adequate level of fire protection and paramedic services. In order to determine the adequacy of fire protection and paramedic services in a given area, the Fire Department places primary importance on the ability of the fire station to efficiently handle any workload that can be reasonably anticipated. This involves an evaluation of fire frequency; simultaneous emergencies; response time (five minutes or less to 80 percent of the structures); geographic and demographic conditions; other types of emergencies (e.g., medical and heavy rescue); and types and numbers of structures requiring additional fire companies to meet fire flow requirements based on Insurance Service Office guidelines.

5) Guidelines for Determining Fire Station Locations: The following guidelines are used by the Orange County Fire Department in locating new fire stations:

- a) The structural conditions of buildings and occupancy classification of the existing and future development influence spacing of stations, type of companies to be installed, and the manning of companies. The Orange County Fire Department uses Insurance Service Office guidelines which list fire company response distances based on fire flow.
- b) The equipment needed to provide support to adjacent stations is one of the criteria used to determine the types of companies needed at new stations. Most future fire stations will be single company stations. An exception would be a station housing both an engine company and a ladder company or a paramedic unit, as the County Fire Department does not plan for stations housing only a ladder company or only a paramedic unit. Ladder companies and paramedic units cover larger areas than engine companies. Minimum response to structural fires is three engine companies, a ladder company and a paramedic unit, which would require the activation of at least two fire stations.
- c) The specific location of a fire station is determined by the close proximity of arterials. An ideal location would be at an arterial highway intersection where traffic signals can be controlled. The one-half acre site must be zoned commercial, industrial, or open space, and must be located on a public street with two-way traffic, level grade and good sight distance.

Paramedic units are located at 11 of the 41 total existing fire stations. The general guideline used to determine the location of paramedic units is one paramedic unit for every 64,000 people or 16 square miles. The traffic patterns and population density of the affected area also is considered. An additional paramedic unit may be placed in an area if the need arises based on the number of calls generated, and the impacts on the communications system.

- 6) Future Conditions: Residential, commercial, and industrial growth projected to occur in south and southeast Orange County will require the expansion of the Orange County Fire Department's system of fire stations. If the phasing of projected growth occurs as currently envisioned in the 1983-84 Development Monitoring Program Report, nine new fire stations will be necessary to provide an adequate level of fire protection and paramedic services in the Orange County Fire Department's services area until the year 2000. In addition, five permanent fire stations will be needed to replace existing temporary stations.

Temporary Fire Station #31, located in North Mission Viejo, should be relocated and replaced by a permanent station by 1985 in order to adequately serve the area. Two temporary fire stations, Station #38 next to Lake Forest and Station #36 in Irvine, are both located on leased land and should be relocated and replaced with permanent structures prior to 1986 and 1987 when the leases expire.

By 1990, seven additional permanent fire stations will be required to provide fire protection and paramedic services to the Aliso Viejo, Irvine Coast, Cook's Corner and Coto de Caza areas.

The Orange County Fire Department has determined the need for the construction, by 1990, of a new administrative headquarters facility, fire emergency communications center, and a joint fire-sheriff training academy. These facilities are planned to be located at the County-owned Musick site.

Four additional permanent fire stations will be needed before the year 2000 in order to adequately serve the Plano Trabuco area and projected development in the North Irvine/foothills region.

The general locations of existing and projected future fire stations are depicted on Map 2-16.

MAP
2-16

b. Orange County Public Library

- 1) Introduction: The Orange County Public Library provides library service to the unincorporated areas of Orange County, plus the cities of Brea, Costa Mesa, Cypress, Fountain Valley, Garden Grove, Irvine, Laguna Beach, La Habra, La Palma, Los Alamitos, San Clemente, San Juan Capistrano, Seal Beach, Stanton, Tustin, Villa Park, and Westminster.

The Orange County Public Library was created in 1919 in order to provide library service to the portions of the county not served by the municipal libraries and library districts in operation at that time. Service is provided through branch libraries, and until 1982 by Bookmobiles in areas lacking a branch library facility. Today, in remote areas located far from a branch library, service is provided by a Books-by-Mail program. In addition, residents with an Orange County Public Library card are eligible, through the Santiago Library System, to check out materials at any public municipal library in Orange County. The Santiago Library System is comprised of the Orange County Public Library, and the six municipal libraries and three independently governed library districts within Orange County.

- 2) Current Conditions: The Orange County Public Library operates 25 branch library facilities. The total floor area of all branch libraries is 235,849 square feet. Storage, cataloging, technical support, and administrative functions are carried out at the library headquarters facility, enabling the branch libraries to be fully devoted to providing direct library service to the patron. The total number of volumes owned by the Orange County Public Library is approximately 1,380,000. Annual circulation of all materials, including books, periodicals, pamphlets, audio and video recordings, graphics, maps, etc., is currently over 7,777,000, or 7.7 per capita.

According to the 1983-84 Development Monitoring Program, several portions of the Orange County Public Library's service area are experiencing shortages of facility capacity. In other words, the six branch libraries serving those areas identified as overburdened are providing a level of service which exceeds that for which the branch libraries were planned according to the service standard guidelines described below.

- 3) Library Service Standards: Prior to 1966, the American Library Association published library standards for public libraries. Since that time, the Association has developed a planning process through which libraries: set up standards appropriate to the local conditions and needs; design strategies to reach those standards, and inaugurate a planning cycle which involves continuous monitoring of progress and regular adjustment of objectives as community conditions and needs change.¹ This

¹Library Facilities Master Plan, June 1982, GSA

process is particularly useful in analyzing the library needs of an existing community. It is more difficult to apply this principle in planning for future libraries as it requires the projection of specific conditions and needs of future communities.

Because most residents in the Orange County Public Library service area are currently receiving library service (albeit overburdened in some areas), the primary focus is on planning for libraries to serve future communities. To this end the Orange County Public Library has determined that a service standard of .2 square foot of library facility per capita is feasible for the purpose of projecting the number and location of new libraries needed. This service standard is a modification of the old American Library Association standard of .33 square foot per capita. The Orange County Public Library has found that libraries with the .2 ratio are providing a satisfactory level of service. This service standard has been accepted by the Board of Supervisors as a planning guide.

The following three factors must be considered in addition to the service standard when projecting the amount of library space needed.

- a) Size requirements of libraries: Most Orange County Public Library branch libraries are planned to be 10,000 square feet in area to maximize cost effectiveness.
- b) Population distribution: The Orange County Public Library strives to locate library facilities within a three mile radius of the communities they serve.
- c) Available sites: Library sites are typically donated by developers or leased from cities.

After evaluation of the above guidelines, the amount of additional library space needed to serve the Orange County Public Library's population until and beyond the year 2000 was projected to be 83,000 square feet.

In the future, several of the above service standard guidelines may be modified to reflect the incorporation of new and innovative techniques in library science and information retrieval. Changes in the technology of library facilities may result in major space redefinitions.

- 4) Future Conditions: The 83,000 square feet of additional needed library space to serve Orange County Public Library population beyond the year 2000 translates into seven new branch libraries.

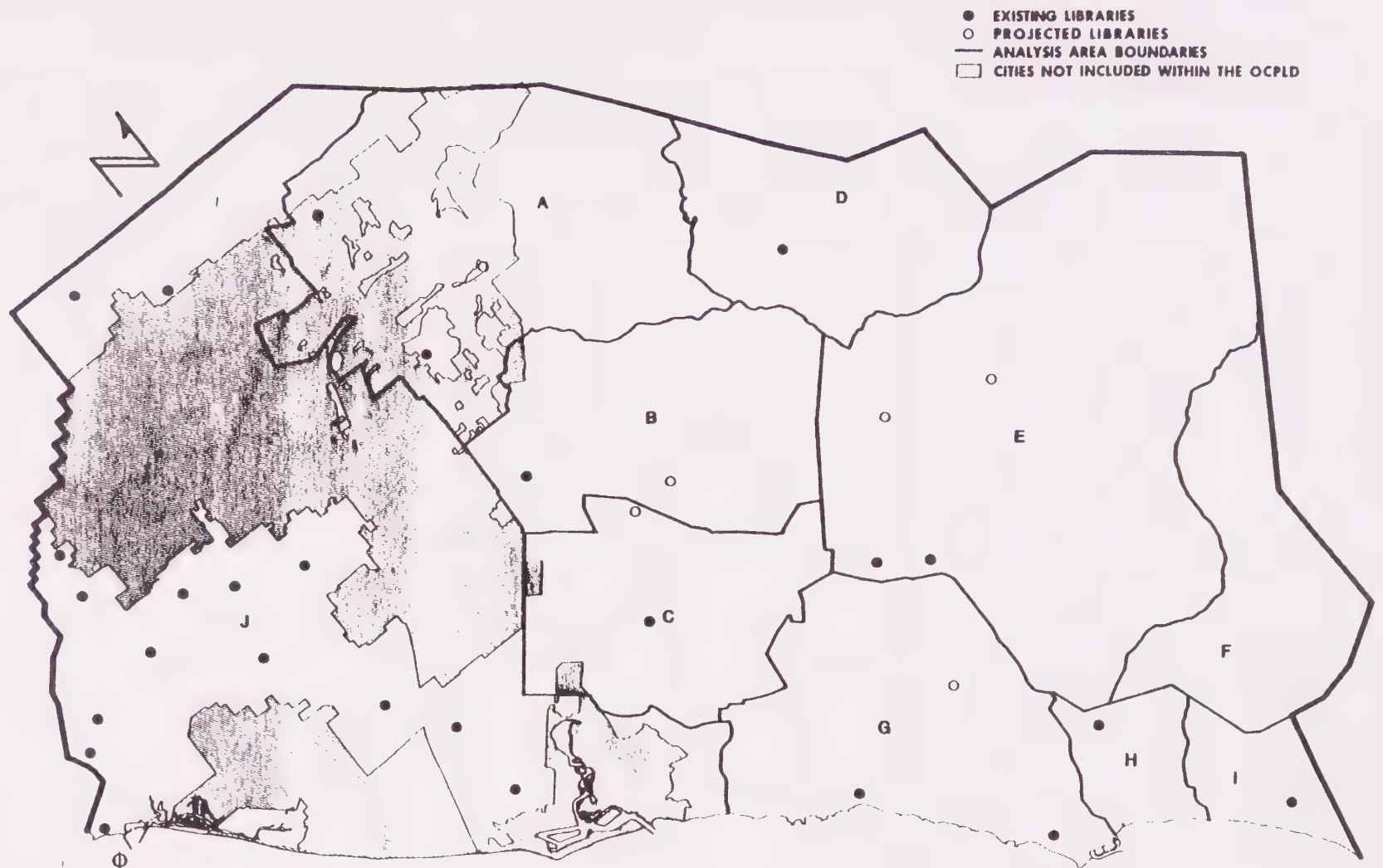
An 18,000 square foot regional library to serve the existing and future residents of central and north Irvine is currently under construction and is projected to open in 1985.

A 10,000 square foot branch library will be needed by 1987 to serve the growing community of Aliso Viejo. The future communities of Whiting Ranch and Glenn ranch will need a 15,000 square foot branch library by 1990.

Before 1995, the Tustin foothills area will need a 10,000 square foot branch library. The future communities of Plano Trabuco, Coto de Caza, and Robinson Ranch will need an approximately 10,000 square foot facility by 1995.

The Irvine Company's foothill region will require a 10,000 square foot branch by 2000. The Aliso Viejo community will need a second 10,000 square foot branch by that year.

The general locations of existing and projected future branch libraries are depicted on Map 2-17.



NOTE: This map is for informational purposes only and is not a part of this element.

c. Sheriff Patrol Service

- 1) Introduction: The Orange County Sheriff-Coroner Department (OCSCD) provides police patrol and investigative services to the unincorporated areas of Orange County plus the contracting cities of San Jan Capistrano and Villa Park. The Department's patrol function is organized geographically into two divisions, the North and South Operations Divisions.

The North Operations Division is stationed in the Sheriff's permanent headquarters in the City of Santa Ana. The service territory of this division covers the unincorporated County islands, John Wayne Airport, areas north of Brea and Yorba Linda, foothill areas east of Orange and north of Tustin, Irvine Coastal area north of Laguna Beach, and the City of Villa Park. As of 1984, the total population served is approximately 101,000.

The South Operations Division is headquartered at the Sheriff's substation in Laguna Niguel. The service territory of this division covers generally the areas east of Irvine and south of Laguna Beach. Major communities served with continuous patrol service include El Toro, Laguna Hills, Mission Viejo, Laguna Niguel, South Laguna, Dana Point, Capistrano Beach, the foothill areas of the Santa Ana Mountains and the City of San Juan Capistrano. As of 1984, the total population served is about 215,000.

The service areas of the North and South Operations Divisions are depicted on Map 2-18.

- 2) Current Conditions: The OCSCD patrol duties include immediate response to emergencies, crime-prevention mobile-unit visibility, response to calls for service and documentation. Currently, the patrol service is provided at a department-wide average of one patrol unit for every increment of 11,000 residents during the day shift, 8,300 residents during the evening shift and 10,400 residents during the night shift. In addition, the Sheriff's Department relies on mutual aid agreements with municipal police departments for back-up patrol units in emergency situations in north Orange County.

In 1983, the North Operations Division made 4,046 arrests and responded to 40,114 incidents. The South Operations Division made 4,422 arrests and responded to 78,678 incidents. The South Operations Division currently serves about twice the population and patrol workload as compared to the North Operations Division. The gap between the two workloads will continue to widen due to major new development growth expected to occur in the south Orange County patrol areas.

ORANGE COUNTY CITIES & COMMUNITIES SERVED BY O.C. SHERIFF

MAP
2-18

- 3) Future Conditions: Most Sheriff patrol unit demand increases are anticipated to occur within the South Operations area where the majority of future growth will take place. In addition to the potential increase in patrol unit requirements, a permanent substation facility is needed to replace the existing temporary structure. The south County temporary substation is a 4,000 square foot modular structure, which was developed as a temporary facility in 1979 pending design and construction of a permanent substation. Design for a 20,000 square foot permanent substation was completed in 1980; however, construction of the facility has not yet begun, and the facility design must be updated. Three additional modular units of 23,160 square feet each were provided in 1984 to mitigate the increased space demands of the south County patrol. The 1984 Master Plan for County Facilities recommended that consideration of the design update for the permanent substation be deferred pending resolution of the mode of service and locational aspects to be determined by a task force.

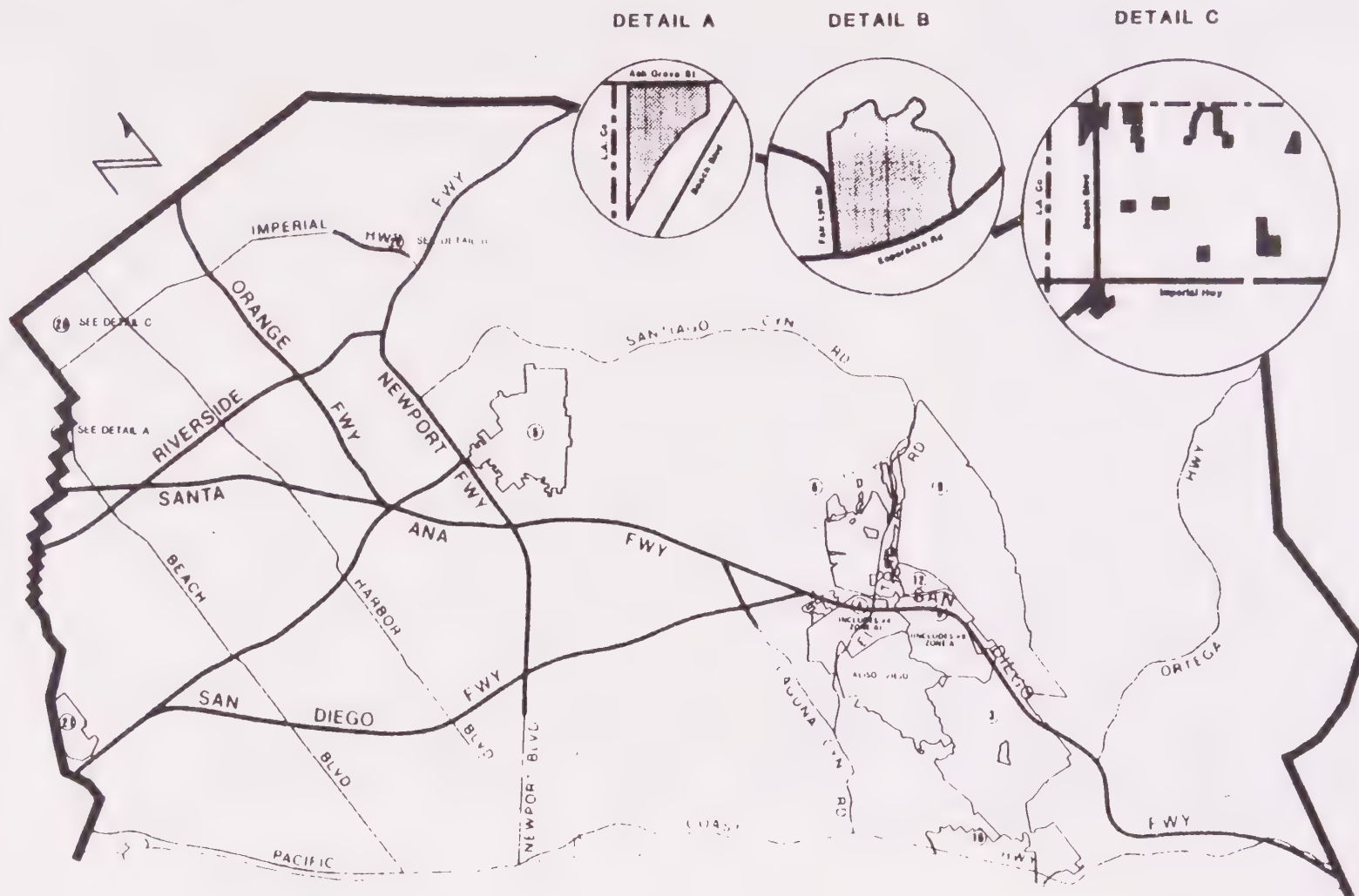
d. County Service Areas

- 1) Introduction: The purpose of County Service Areas (CSAs) is to provide local or municipal type government services not typically provided by counties in unincorporated communities. The California Government Code provides for the formation of County Service Areas. The types of services a CSA may provide range from police protection to pest or rodent control and include any extended service which the County is authorized by law to provide and does not provide to the same extent on a Countywide basis. County service areas receive the majority of their funding, other than Special District Augmentation Funding, from property tax revenue.

The 15 CSAs (see Map 2-19) in Orange County are governed by the Board of Supervisors and administered by the Environmental Management Agency. Services, described below, are provided either by EMA/Public Works or a private service provider.

The services which a CSA is authorized to provide are determined at the time it is established. Many CSAs do not provide currently all of the services they are authorized to provide, such as structural fire protection, library facilities, bridge maintenance and trash collection. The most common services provided by the CSAs in Orange County are outlined below.

- a) Local park development and maintenance: Developers typically dedicate land for local parks as required by the Local Park Code. County Service Area funds are to be used to develop the park site, maintain the park on a continuous basis, and, in some cases, provide for recreation programs.
- b) Landscape maintenance: Maintenance of landscaped areas along roadsides, medians, and slopes is provided through the County Service Area.



NOTE: This map is for informational purposes only and is not a part of this element.

- c) Street sweeping: Regular sweeping of public residential streets is funded by County Service Areas.
- d) County liaison services: County Service Areas fund the operation of municipal advisory councils, and County information services within CSA communities.

The specific services provided by each CSA within Orange County are listed below.

Laguna Niguel CSA No. 3: Maintenance of seven developed and four undeveloped local parks, operation of one community center, landscape maintenance, street sweeping, and County liaison services.

Leisure World CSA No. 4: Maintenance of four developed local parks, operation of one community center, landscape maintenance, street sweeping, street lighting and County liaison services.

Leisure World CSA No. 4, Zone A: Landscape maintenance, street sweeping and street lighting.

North Tustin CSA No. 5: Maintenance of two developed and one undeveloped local parks, landscape maintenance, and County liaison services.

El Toro/Lake Forest CSA No. 6: Maintenance of eleven developed and two undeveloped local parks, landscape maintenance, street sweeping, and County liaison services.

South Laguna Hills CSA No. 8: Maintenance of eight developed and two undeveloped local parks, landscape maintenance, street sweeping, and County liaison services.

South Laguna Hills, CSA No. 8, Zone A: Landscape maintenance.

Mission Viejo CSA No. 9: Police protection (purchase and maintenance of radar guns by the Highway Patrol), maintenance of 22 developed and 7 undeveloped local parks, landscape maintenance, street sweeping, and County liaison services.

Aegean Hills CSA No. 12: Maintenance of four developed and one undeveloped local parks, landscape maintenance, street sweeping, and County liaison services.

La Mirada CSA No. 13: Street sweeping.

South Laguna CSA No. 16: Maintenance of one developed local park.

La Habra CSA No. 20: Sewer maintenance.

Rossmoor CSA No. 21: Maintenance of one developed and one undeveloped local park, and operation of one community center.

East Yorba Linda CSA No. 22: Maintenance of one developed local park.

Aliso Viejo CSA No. 25: Authorized currently to provide parks and recreation, landscape maintenance, street sweeping, and County liaison services; however, the CSA has not yet begun to provide these services. These services are currently provided by homeowners' associations and are funded through association fees. A condition of the formation of CSA No. 25, established in 1981, stated that no property tax revenue would be diverted to CSA No. 25.

- 2) Current Conditions: Since the passage of Proposition 13, the policy of the Board of Supervisors has been to preclude property tax transfers when subdivisions annex to special districts. One consequence of this policy is that, while annexations to county service areas have continued, corresponding increases in the property tax allocation to the CSA have not occurred. As a result, County Service Areas provide limited services in newly annexed areas. Most areas recently annexed to a County Service Area receive only street sweeping service.

Other services traditionally provided by County Services Areas are being funded by homeowners' associations.

Even after minimizing increases in services to newly developing areas, most County Services Areas are facing significant budget deficits, and have required large allocations from the Special Districts Augmentation Fund in order to continue operating.

The County's Local Park Code requires subdividers of land for residential developments in the unincorporated areas to offer land for dedication and/or pay in-lieu fees for new local parks. The number of local parks or sites accepted by the County, or acquired with in-lieu fee revenue, has declined since the approval of Proposition 13 in 1978. CSA revenue has not been adequate to fund development of new parks or to provide maintenance for additional parks. As a result, the County has been requiring developers to irrevocably offer parks for dedication. These parks, either developed or undeveloped, are privately maintained by homeowners' associations until such time as the CSAs have sufficient funds to accept them as public parks.

- 3) Future Conditions: The future status of County Service Areas is uncertain. Most services previously provided by County Service Areas through property tax funding are now likely to be funded through homeowners' association fees or other means. One County Service Area, Aliso Viejo CSA No. 25, formed in 1981, is not currently providing any services. CSA 25 was established in anticipation of the possible development and implementation of

new methods for funding county service areas. All services in Aliso Viejo are funded currently by homeowners' association fees.

A possible alternative to homeowners' association funding is the creation of benefit assessment districts and/or Community Service Districts (CSDs). Without the implementation of additional, alternative funding sources, County Services Areas would be faced with either greater reliance on Special Districts Augmentation Funds, which are not an assured source of revenue, or a reduction in service.

e. Orange County Street Lighting Assessment District

Introduction: Prior to 1983, street lighting in the unincorporated areas of Orange County was provided by 23 individual street lighting districts. In 1983, these districts were dissolved, and their responsibilities were transferred to the newly-formed Orange County Street Lighting Assessment District. Governed by the Orange County Board of Supervisors, this district was formed to extend and facilitate the levying of benefit assessments to finance the delivery of street lighting service. The district at present is responsible for approximately 18,488 lighting units. As subdivisions in the unincorporated areas are approved, they are required to annex to the district if public street lighting is desired.

EMA is the designated administrator of the Orange County Street Lighting Assessment District. EMA administers and determines the District's budget and calculates assessments; prepares engineer's reports; approves utility bills; oversees work of serving utility companies contracted to perform maintenance and installation of lighting systems; insures that new lighting systems within the district conform to Orange County standards (EMA Standard Plan 411); and keeps records of all street lights in the lighting district.

Street lighting installation is typically a required condition of subdivision approval. EMA Standard Plan 411 further specifies the design and installation of street lighting.

Funding of the Orange County Street Lighting Assessment District operation was intended to derive from assessing property owners the cost relating to the benefit each parcel received from street lighting. The assessments would be calculated each year and included on each benefitting property owner's tax bill. Since the 23 individual districts were dissolved, the district has received the whole amount of the basic levy allocation of property tax revenues, including the contributions to the Special District Augmentation Fund, from the former lighting districts. Although this district was established as a benefit assessment district, it has not been necessary as of yet to assess property owners a fee for street lighting, as property tax revenue has been sufficient to fund street lighting services.

f. Schools

1) Introduction

According to the 1987 Orange County Development Monitoring Program (DMP) Report, Orange County's population is projected to increase by 17 percent between 1985 and 1995. The annual rate of growth will remain a fairly steady 1.7 percent over this 10-year period to reach a population of nearly 2.5 million. During this period, nearly 160,000 housing units will be added to the County's 1985 housing stock of 773,400 dwellings. This projected population increase and accompanying new development will have a definite impact on Orange County school districts, particularly those serving unincorporated portions of Orange County.

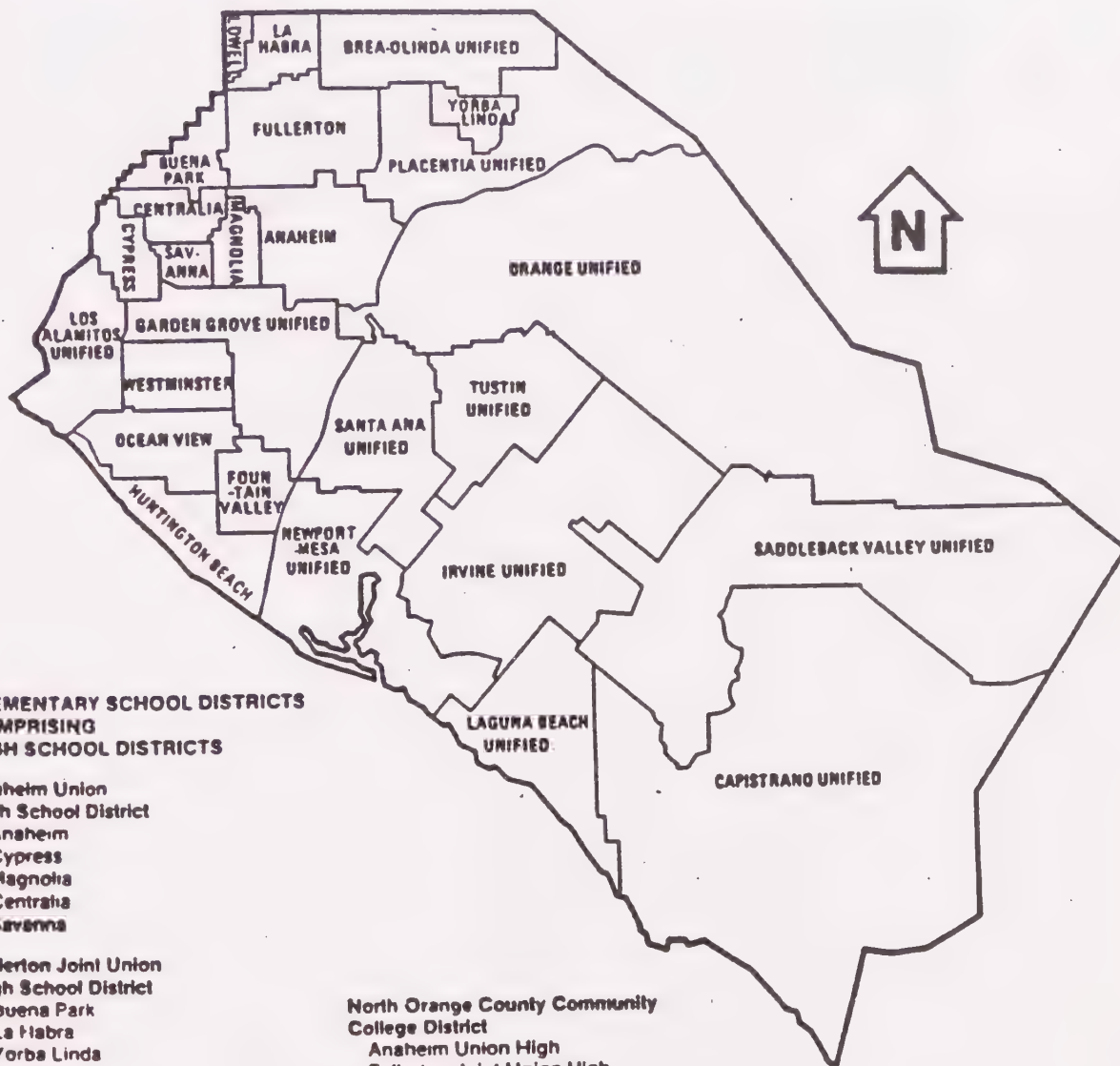
Orange County is comprised of 26 separate school districts (Map 2-1). The majority of these school districts entirely or predominantly serve the incorporated North County areas. Within South County, the majority of the projected population and construction growth is expected to occur within two school districts: Saddleback Valley Unified School District and Capistrano Unified School District, two Districts projected to experience significant growth over the next ten years. District efforts to secure school facilities as well as the effect of recent legislation on such efforts are examined. The other district focused upon, also expecting tremendous growth, is the Orange Unified School District. This District will be drawing additional students both from existing North County areas as well as from substantial new construction growth in the District's undeveloped areas.

Enactment of legislation, such as Assembly Bill 2926 passed in 1986, has transferred authority to implement developer fee programs for financing of school facilities from the local government to the individual school districts. However, certain functions (e.g., issuance of building permits and zone changes) remain with the County, enabling the County to encourage and support the adequate provision of school facilities. This component of the Public Services and Facilities Element emphasizes the coordination between District and County efforts.

2) Background

Historically, Orange County's population has shown a steady increase, with the unincorporated areas showing a decidedly larger increase than the predominantly developed incorporated areas. Census figures have recorded a figure of 2.7 to 2.8 persons per household for the unincorporated areas for the last decade. This has mirrored the countywide statistics for the same time period.

Orange County School Districts



ELEMENTARY SCHOOL DISTRICTS COMPRISING HIGH SCHOOL DISTRICTS

Anaheim Union
High School District
Anaheim
Cypress
Magnolia
Centralia
Savanna

Fullerton Joint Union
High School District
Buena Park
La Habra
Yorba Linda
Fullerton
Lowell

Huntington Beach Union
High School District
Fountain Valley
Huntington Beach City
Ocean View
Westminster

HIGH SCHOOL DISTRICTS COMPRISING COMMUNITY COLLEGE DISTRICTS

Coast Community College District
Huntington Beach Union
Los Alamitos Unified
(Seal Beach Area)
Newport-Mesa Unified
Garden Grove Unified (South of
Chapman Avenue & East of
Euclid Avenue)

North Orange County Community
College District
Anaheim Union High
Fullerton Joint Union High
Brea-Olinda Unified
Placentia Unified
Los Alamitos Unified
Garden Grove Unified (North of
Chapman Avenue & West of
Euclid Avenue)

Rancho Santiago Community
College District
Santa Ana Unified
Orange Unified
Garden Grove Unified (East of
Euclid & North of
Edinger Avenue)

Saddleback Community College District
Capistrano Unified
Irvine Unified
Laguna Beach Unified
Saddleback Valley Unified
Tustin Unified

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Orange County Department of Education and State Department of Finance census data reveal that, as a whole, public school enrollment from 1961 through 1985 rose steadily until 1975. At that time, total school enrollment, including K-6, 7-8, 9-12 and 13-14 (Community college), began a sporadic decline. This decline was primarily due to the unexpected rise in interest rates and the corresponding decrease in residential construction. The lowest public school enrollment in the last decade occurred in 1983.

Currently, interest rates on residential construction are down and the County is experiencing a "Baby Boom Echo", that is, those who comprised the post-World War II Baby Boom are now having children. School enrollment, therefore, is projected to rise markedly within the next eight years before leveling off in 1995. This growth in enrollment will predominantly be manifested in the Saddleback Valley Unified School District (SVUSD), Capistrano Unified School District (CUSD) and Orange Unified School District (OUSD). CUSD has, since its inception, maintained a School District Master Plan as part of their planning process. In order to better accommodate their growth, it was decided by SVUSD, the County and other associated agencies that the development of a SVUSD Master Plan was in order. SVUSD prepared a Master Plan in September 1973 and have prepared one periodically since that time. OUSD has intended that their Master Plan be a "General Plan" for development of facilities and implementation of services. As such, it is inexorably related to the General Plans of the communities within the District. These Master Plans discuss information including: definition of data resources and needs; determination of existing utilization of facilities; evaluation of facility standards; enrollment methodology; inventory of future development; projection of enrollment; determination of facility needs; determination of facility costs; and, implementation programs. The SVUSD Master Plan was completed in September 1987; the current CUSD Master Plan (1985) was updated in February 1988; the current OUSD Master Plan (1987) was updated in March 1988.

3) School Facility Funding

Between 1900 and the passage of Proposition 13 in 1978, virtually all schools in the State were financed through popularly voted bonds secured by property taxes. Proposition 13 placed a ceiling on the property tax rate which could be assessed against property, effectively eliminating new bond issues requiring a tax levy greater than 1% of market value. In June 1986, the voters in a statewide election approved Proposition 46 to allow bond issues supported by at least two-thirds of the voters, even if the measure would exceed that 1% tax levy ceiling.

School bond measures have traditionally been attractive because of their ability to raise enough capital at one time to build a complete school project, as opposed to waiting to collect enough in individual fees. Property tax measures and parcel taxes achieve this objective.

The SB 201 program provides for fees collected from developers to be used for interim school facilities. These fees are collected at a rate of 0.8 percent of sales price with a \$1,200 maximum per dwelling unit. In January and May of 1986, Saddleback Valley and Capistrano Unified School Districts, respectively, notified the Board of Supervisors that SB 201 fees were no longer adequate to provide for school facility needs. The Districts stated that:

- (a) The ordinances in question contain no provisions for increasing the amount of monies collected per dwelling unit, despite increases over the past eight years of 69 percent in the cost of leasing portable classrooms and paying the craftsmen who install these buildings (CUSD);
- (b) The cash flow from the current SB 201 developer fee program is inadequate to cover the lease costs for all existing and anticipated portable classrooms in the unincorporated areas of the district (CUSD);
- (c) State funding for permanent facilities was not available (SVUSD); and
- (d) There was no guarantee from anyone for the provision of permanent facilities for future development. (SVUSD)

Over the months following the District's individual and uncoordinated declarations to the Board of Supervisors, new school legislation was drafted and signed into law. One of the bills, SB 327 known as the Greene-Hughes School Building Lease-Purchase Bond Act, focuses upon school construction program provisions. SB 327 makes substantial improvements in the standards for the Lease-Purchase program (L. Green, 1976) and modifies program eligibility to enable more districts to become eligible for State funding (see Appendix A for specific provisions). SB 327 will work in conjunction with AB 2926.

AB 2926 for the first time authorizes school districts to directly levy fees on new residential and commercial construction. This bill is the financing mechanism for SB 327 (see Appendix A for specific provisions).

An additional major source of funding for school facilities is Mello-Roos Community Facilities Act financing. This act gives school districts and other local government agencies authority to use property tax based assessments. The public agency can form a Community Facilities District (CFD) as a means of funding schools, fire stations, libraries, or other community

facilities. CFD's must be approved by a majority of the current landowners. School districts also have the ability to enter into various forms of financing agreements to use available monies earmarked for large capital purchases. Common examples include certificates of participation and leases through the California School Finance Authority.

Certificates of participation involve the school districts' ability to obtain tax-exempt financing for certain purchases and are similar to lease-purchase contracts, with the exception that title is vested with a trustee for the duration of the lease and repayment period.

The California School Authority is a special branch of the State Treasurer's Office which assists school districts with their special financing needs. By coordinating short-term loans and notes for many school districts, the Authority is able to obtain better interest rates than are available to individual school districts. All other aspects of the Authority are the same as for private vendor lease-purchase contracts.

Proposition 75, passed in California on June 7, 1988, is a school bond which authorizes the State to issue general obligation bonds for \$800 million for school construction. The sum will be divided as follows:

- ° \$120 million may be used for reconstruction and modernization.
- ° \$40 million may be used for air conditioning and insulation so year-round schools can be used in areas with hot climates.
- ° \$50 million may be used for temporary portable classrooms.
- ° the remaining amount would be used for the actual construction of new schools throughout California - prioritized wherever the need is greatest.

The school bonds would be paid for a little each year out of the general tax revenues of the state. In that way, no tax increase will be necessary to fund a sudden increase in spending for school construction.

4) School Site Selection Process

Selection of an appropriate site for a school is an important consideration for the community and the school district. Proper location, size and shape of school sites can materially affect educational programs and opportunities. The size of a site should be determined by the educational program planned for that site.

The educational program differs for various types of schools and programs. In Orange County, each district has a slightly different site selection process and set of selection criteria. Although the State Department of Education does not have a mandatory set of site selection criteria which must be adhered to, they do provide some suggested guidelines which local districts follow at least to some degree. These guidelines are described in the following site selection discussion.

The responsibility for site approval is given to the State Department of Education through Education Code Section 39000, et seq. and 17723. The Education Code requires the Department of Education to review and approve all new school sites and additions to school sites for all school districts regardless of the source of funding.

In addition to site approval authority, the Department of Education, School Facilities Division has the responsibility to ensure that districts applying for State School Building funds comply with all State Allocation Board policies regarding site acquisition. This responsibility includes determination of site size, consideration of alternative sites and evaluation of different proposals as outlined in the Lease-Purchase Applicant Handbook sections 3860 through 3865.

Whereas it is the responsibility of the Department of Education to approve school sites, it is the responsibility of the individual school districts to select the site. In order to be as accurate and specific as possible in selecting sites, criteria are developed to evaluate present and future possible characteristics of the site and surrounding property.

A summary of 25 Department of Education factors are listed below. These criteria are not the only ones which might be considered.

- | | |
|---------------------------|--------------------------------|
| 1. Availability | 14. Expansibility |
| 2. Location | 15. Flexibility |
| 3. Environment | 16. Educational Adaptability |
| 4. Accessibility | 17. Site Development |
| 5. Size | 18. Utilities |
| 6. Shape | 19. Public Service |
| 7. Topography | 20. Community Use |
| 8. Acquisition | 21. Outdoor Activities Desired |
| 9. Cost of Land | 22. Undesirable Elements |
| 10. Soil Condition | 23. Maintenance Implications |
| 11. Sub-surface Condition | 24. Political Implications |
| 12. Site Preparation | 25. Master Planning Factors to |
| 13. Orientation | be Considered |

Within each of these primary factors are secondary factors which are of equal importance for a complete analysis of a given site. They provide an understanding of the types of data needed in the identification, selection, and acquisition of a school site.

The School Facilities Planning Division, State Department of Education also suggests consideration of certain safety factors. These safety considerations include the following: proximity of site to airports; high tension lines; traffic; toxics; geologic factors; and joint use concerns.

Airports: As part of the prescreening process in site selection, the district should determine if the site is within two miles of an airport, if aircraft activity can be expected over the site during inclement weather and whether instrument approaches can be expected. If military or heavy jets are involved, a longer distance might be considered.

The Department of Transportation will not normally recommend acquisition of school sites within one mile of an airport and under any runway approach surface unless a suitable noise study indicates that the proposed site will not be subjected to existing or future aircraft noise levels of 65 dB CNEL or greater. The Department may also recommend that noise attenuation be included in the design of classroom buildings where appropriate. For military airports, the Airport Installation Compatible Use Zone (AICUZ) Study which identifies, among other things, crash hazard zones and noise contours, should be consulted.

High Tension or Power Transmission Lines: Electric power transmission lines can and do carry over 700,000 volts of electricity. There are several issues of health and safety regarding overhead transmission lines. It is the policy of the School Facilities Planning Divisions to strongly recommend a minimum of 400 feet from the boundaries of any school site to any power company easement for overhead transmission lines.

Traffic and School Bus Safety: The location of the school on a site should provide a safe means of entrance and departure for all pupils. As more schools become involved in child care and extended day classes, the smooth flow of buses and traffic into and out of schools becomes critical. When boards of education are considering sites, it is suggested that the state, county and local roads servicing the area should have a minimum of 30-foot width paved where loading and unloading is contemplated off the main thoroughfare, and in front of the school, at least a 40-foot wide paved road should be provided.

Geological and Soils Analysis: Education Code Section 39002 requires a geological and a soils engineering study be conducted if the prospective school site is located within the boundaries of any special studies zone, or within an area designated as geologically hazardous in the seismic safety element of the local general plan, as provided in subdivision (f) of section 65302 of the government code. The site shall be evaluated with respect to population, transportation, water supply, waste disposal facilities, utilities, traffic hazards, surface drainage conditions and other factors.

Toxics: The presence of potentially toxic and hazardous substances on or about the vicinity of a school site should be an integral part of the site selection criteria. Special consideration should be given to landfill areas, proximity to dump sites, chemical plants, refineries, fuel storage facilities, nuclear generating plants, and agricultural areas where there was a heavy use of pesticides and fertilizers. From a nuisance aspect, consideration should also be given to the selection of a school site near or downwind from a stockyard, fertilizer plant, soil processing operation, or sewage treatment facility.

Joint Use: Many school districts are planning schools for joint use with park districts. This may provide a developed recreational area for students and the community, but care should be taken so that the site may accommodate both without compromising the security of the school. Particular attention should be directed toward the placement of public parking and public restrooms relative to classrooms and student play areas.

5) Saddleback Valley Unified School District

(a) Current Enrollment and Facility Capacity

The SVUSD Master Plan shows that the current District enrollment of approximately 22,803 students will increase to over 26,000 during the early and mid-1990s and then declining somewhat by 2001-02. Elementary, intermediate, and high school enrollment are projected to peak in 1990, 1993, and 1997, respectively. The SVUSD Master Plan, prepared by Arthur Young, utilizes 1986-87 data.

Facility capacity can refer to a variety of factors. "Design capacity" refers to the total number of students a facility was originally designed to accommodate. "Permanent design capacity" is the total capacity utilizing only permanent structures. "Total available capacity" refers to the permanent design capacity plus additional capacity acquired by utilizing portable classroom space.

The District's 19 elementary (K-6) schools were utilized during the 1986-87 school year at a districtwide average of 90.9% permanent design capacity (10,306 student enrollment versus design capacity of 11,327). Portable classrooms brought the total available capacity to 11,601 and the resulting utilization level to 88.8%. The actual utilization percentage varied considerably among individual school sites.

Enrollment in the District's three intermediate schools (grades 7-8) was 3,108, with a design capacity of 3,327, or 93.4% utilization. Including portable capacity, total available capacity is 3,657 and the resulting utilization level is 85.0%.

The District's four comprehensive high schools had an enrollment of 7,291 during 1986-87, while the schools had a design capacity of 6,100 pupils. Total utilization was 119.5%. Use of portables brought the total capacity to 6,772 for a total utilization rate of 107.7%. This figure should be viewed in the context of Trabuco Hills High School utilizing eighteen trailer classrooms to supplement the twenty-four permanent classrooms in Phase One of the school.

A total of fourteen school sites are above or within 5% of their design capacities (see Chart 2-3).

Chart 2-3
Sites Reaching Design Capacity

		<u>Pupils</u>	<u>Design Capacity</u>	<u>Percent of Design Capacity</u>
Del Cerro	(K-6)	653	632	103.3%
Del Lago	(K-6)	680	530	128.0%
La Madero	(K-6)	653	632	103.3%
La Tierra	(K-6)	345	347	99.4%
Lomarena	(K-6)	657	670	98.1%
Rancho Canada	(K-6)	607	632	96.0%
Trabuco	(K-6)		71	363.0%
Trabuco Mesa	(K-6)	500		
Valencia	(K-6)		716	110.0%
La Paz	(7-8)	891	835	106.7%
El Toro	(9-12)	2,573	2,138	120.3%
Laguna Hills	(9-12)	1,431	1,174	121.9%
Mission Viejo	(9-12)	2,150	2,178	98.7%
Trabuco Hills	(9-12)	1,137	610	186.4%
Silverado	(Continuation)	394	292	134.9%

(b) District Program and Non-Program Needs

Classrooms in SVUSD are utilized for instructional programs other than general or special education at the elementary level. Non-school uses are accommodated in district classrooms. These uses include adult education, storage/workroom, storage/speech, and Kid's World. Kid's World is a preschool program operated for the community by the District Recreation Department and the YMCA. At most sites, this program uses a classroom only after normal school hours. Preschool and especially extended day care (before and after school) programs are increasingly important to households with two working parents or a single working parent. By providing this service through Kid's World, the District is meeting an important community need.

State and Federal mandates have required the District to provide classes for students with a wide range of disabilities. The Resource Specialist Program (RSP) is a pullout program that does not require a size classroom at the elementary level, but generally does at the full intermediate and senior high levels. Special Day Class (SDC) programs typically have ten or fewer students per classroom, but generally require a full-size classroom because of specialized instructional needs to these students. Special Education classes occupy forty-one permanent classrooms in the District.

Additional facility needs include provision for central facilities. In general, the District Administrative office areas, located in Mission Viejo, are adequate. With additional growth, new space will have to be constructed. Otherwise ancillary programs such as media resource/library and the Recreation Department discussed below will have to be shifted to another site.

Finally, there are non-building needs which are to be considered when assessing school facility needs. SVUSD is unusual in that the District operates a Recreation Department for the community. As many community recreation fields are school fields, this provides efficient scheduling for the schools and the community. Costs are paid through a special community-recreation tax. Additional non-building needs include: athletic fields for school-related physical education and activities; parking for school staff, volunteers and visitors; and open space to separate school activities from neighbors and road noises.

(c) Constraints to Increased Enrollment at Existing Sites

It is generally possible to exceed a school's permanent or design capacity by 25% before facility constraints significantly impinge upon the educational program. At any point above the permanent capacity, however, delays and problems may occur. Capacity limitations may stem from lack of additional facilities and areas other than classrooms such as restrooms, site acreage, lockers at junior and senior high schools, available parking for staff, lunch and eating areas, etc. Because portables expand classroom capacity without adding restrooms and other facilities affecting school capacity, some schools in the District have or will soon reach their capacity.

It should be noted that year-round education utilizes the school for more months each year rather than placing more students on the campus at any one time, but does increase the needs for storage and some other types of spaces at all time of the year.

(d) Enrollment Projections

Districtwide projections are shown on Table 2-12. These statistics show that for the first five years of the projection period, districtwide enrollment is projected to increase to a level appropriately 10% greater than 1986-87 enrollment. During the following five-year period, districtwide enrollment is projected to remain relatively constant with minor annual variations.

After this period, districtwide enrollment shows a steady decline to approximate the current 1986-87 level. This trend is the result of a slowdown in new home construction as the remaining development projects within District boundaries are built. New homes are projected to begin an enrollment decline after five years which will not be offset by continuing new home construction.

Because existing attendance areas were used for projections, some schools show projected enrollments for an excess of the school's actual capacity. This suggests that provisions will need to be made to prevent future overcrowding in some areas. Such provisions may include: reconfiguring attendance areas; building new schools; adding relocatable or permanent classrooms to existing schools; and busing students to a nearby school which has available classroom space.

TABLE 2-12

Districtwide Enrollment Projections 1987-88 - 2001/2002
Saddleback Valley Unified School District

	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>K-6</u>	<u>7</u>
1986-87 Actual:	1,552	1,447	1,395	1,418	1,433	1,418	1,322	9,985	1,543
87/88 Projected:	1,401	1,620	1,513	1,461	1,488	1,518	1,488	10,489	1,419
88/89 Projected:	1,403	1,512	1,744	1,640	1,595	1,621	1,639	11,154	1,628
89/90 Projected:	1,420	1,513	1,635	1,870	1,773	1,727	1,741	11,679	1,778
90/91 Projected:	1,338	1,482	1,580	1,706	1,944	1,847	1,792	11,689	1,817
91/92 Projected:	1,338	1,381	1,527	1,629	1,756	1,994	1,891	11,516	1,842
92/93 Projected:	1,339	1,382	1,427	1,577	1,680	1,807	2,039	11,251	1,942
93/94 Projected:	1,339	1,383	1,428	1,477	1,628	1,731	1,852	10,838	2,090
94/95 Projected:	1,339	1,383	1,429	1,478	1,528	1,679	1,776	10,612	1,903
95/96 Projected:	1,346	1,386	1,433	1,481	1,533	1,582	1,729	10,490	1,832
96/97 Projected:	1,346	1,394	1,436	1,485	1,537	1,588	1,633	10,419	1,786
97/98 Projected:	1,346	1,394	1,444	1,488	1,541	1,592	1,639	10,444	1,690
98/99 Projected:	1,346	1,394	1,444	1,496	1,544	1,596	1,643	10,463	1,696
99/2000 Projected:	1,346	1,394	1,444	1,496	1,552	1,599	1,647	10,478	1,700
2000/01 Projected:	1,330	1,375	1,424	1,477	1,531	1,586	1,630	10,353	1,682
2001/02 Projected:	1,330	1,356	1,405	1,456	1,510	1,563	1,615	10,235	1,664

	<u>8</u>	<u>7-8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>9-12</u>	<u>K-12</u>	<u>Change</u>
1986-87 Actual:	1,525	3,059	1,744	1,897	1,956	1,711	7,308	20,352	--
87/88 Projected:	1,589	3,008	1,606	1,798	1,964	1,994	7,362	20,859	507
88/89 Projected:	1,549	3,177	1,745	1,770	1,954	2,106	7,575	21,906	1,554
89/90 Projected:	1,757	3,535	1,705	1,909	1,926	2,096	7,636	22,850	2,498
90/91 Projected:	1,850	3,667	1,843	1,793	1,993	2,004	7,633	22,989	2,637
91/92 Projected:	1,866	3,708	1,907	1,901	1,848	2,046	7,702	22,926	2,574
92/93 Projected:	1,892	3,834	1,925	1,967	1,958	1,902	7,752	22,837	2,485
93/94 Projected:	1,992	4,082	1,951	1,985	2,024	2,012	7,972	22,892	2,540
94/95 Projected:	2,140	4,043	2,051	2,011	2,042	2,078	8,182	22,837	2,427
95/96 Projected:	1,956	3,788	2,207	2,118	2,075	2,101	8,501	22,779	2,427
96/97 Projected:	1,886	3,672	2,022	2,276	2,183	2,134	8,615	22,706	2,354
97/98 Projected:	1,840	3,530	1,952	2,089	2,343	2,242	8,826	22,600	2,248
98/99 Projected:	1,744	3,440	1,906	2,019	2,154	2,404	8,483	22,386	2,034
99/2000 Projected:	1,750	3,450	1,809	1,973	2,084	2,213	8,079	22,007	1,655
2000/01 Projected:	1,734	3,416	1,790	1,850	2,013	2,119	7,772	21,541	1,189
2001/02 Projected:	1,714	3,378	1,773	1,831	1,889	2,047	7,540	21,153	801

SOURCE: Saddleback Valley Unified School District Master Plan, Final Report
(Arthur Young, October 1987)

The methodology used for making enrollment projections includes three major factors:

- o The basic student advancement process.
- o The addition of new students in the basic process, taking into account the development of housing in the District during the projection period.
- o The use of change factors to modify the number of students projected in the advancement process to reflect the change in student generation per house as housing ages.

The projections are based on the number of students residing in each attendance area rather than the number of students attending the school in that area.

In general, the methodology utilized combined the factors in the following manner:

- o 100% cohort survival
plus
- o Kindergarten enrollment
plus
- o Students from new homes
minus
- o Change factor due to aging of homes

Specific methodology procedures concerning cohorts, factors, and data sources can be found in the SVUSD Master Plan.

(e) Facility Needs and Costs through 2001-02

New development is occurring and expected to continue in the eastern portion of the District. In order to accommodate increased enrollment in that area we project that SVUSD will need two new elementary schools and one new intermediate school and will need to expand Trabuco Hills High School. Silverado High School will also require expansion. In addition, the District will need to add to its support facilities. The total estimated costs of these capital improvements is \$44,278,160 (see Table 2-13).

Table 2-13

Estimated Costs of Capital Improvements, SVUSD

<u>Project</u>	<u>Year</u>	<u>Pupil Capacity</u>	<u>Square Feet</u>	<u>Cost</u>
Santa Margarita Elementary School	1988-89	600	-	\$ 5,970,000
Trabuco/El Toro Road School:				
Phase 1 (75% of capacity)	1988-89	480	-	4,663,500
Phase 2 (25% of capacity)	1989-90	160	-	1,554,500
Santa Margarita Intermediate	1992-93	750	-	11,595,000
Trabuco High High School Expansion*	1988-89	1,440	-	16,761,600
Silverado High School Expansion*	1988-89	236	-	2,633,760
District Support Areas*	1988-89	N/A	10,998	<u>1,099,800</u>
				<u>\$44,278,160</u>

*Trabuco Hills High School, Silverado High School and District Support area expansions are phased projects beginning in year shown.

Elementary Schools - Development in the eastern portion of the District will require that additional new schools be built. The following chart summarizes estimated costs, projected opening year and projected students.

<u>Project</u>	<u>Year</u>	<u>Pupil Capacity</u>	<u>Cost</u>
Trabuco Mesa Elementary	1980	620	\$ 7,906,000
Eastlake #2 Elementary	1990	600	10,724,000 (incl. site)
Robinson Ranch Elementary	1991	900	10,583,000 (incl. site)
Portola Ranch Elementary	1991	600	8,024,000 (incl. site)
Foothill Ranch Elementary	1991	900	10,687,000 (incl. site)
Santa Margarita Elementary	1989	600	5,970,000
Northcrest/Pittsford Elem.	to be determined	600	
Nellie Gail Elementary	to be determined		
Rancho Trabuco Elementary	to be determined		

Intermediate & High Schools - Intermediate schools are projected to start exceeding their permanent design capacity in 1989-90 and would exceed 115% of that capacity in 1992-93 without the addition of a new facility. The projected 1992 Rancho Santa Margarita Intermediate School will have a pupil

capacity of 1,200 and will cost an estimated \$19,848,000. By establishing the new intermediate school in the growing eastern portion of the District, sufficient facilities should be in place to allow for balanced geographical attendance throughout the SVUSD area.

High schools are already at 120% of permanent design capacity. In order to achieve the adopted standards, SVUSD will need to expand Trabuco Hills High School in 1988-89 by 1,440 students at an estimated cost of \$16,761,600. That expansion, along with additional space at Silverado Continuation High School, should meet the District's needs to the end of the projection period. The Silverado expansion would provide space for an additional 236 pupils in 1988-89 at an estimated cost of \$2,633,760.

District Support Areas - The State standard for support-staff work spaces for administration, operations, maintenance, speech therapy and other support functions is three square feet for each additional unit of pupil capacity built. It is projected that a total of 10,998 additional square feet of support space is needed to serve additional enrollment at an estimated cost of \$1,099,800.

5) Capistrano Unified School District

(a) Current Enrollment and Facility Capacity

Capistrano Unified School District (CUSD) is the second largest school district in Orange County, covering an area of 194 square miles. Much of CUSD is unincorporated and governed by the County of Orange; the remainder of the District is located within the cities of San Juan Capistrano, San Clemente and Mission Viejo.

The regular K-12 enrollment of CUSD in September 1987 was 21,364. According to Volume 8 of the Orange County Development Monitoring Program (DMP) Report, this enrollment is projected to increase 30 percent to almost 26,000 by September 1995, with the majority of the increase occurring in the elementary and intermediate grade levels. This is supported by the fact that kindergarten enrollment has peaked successively in 1983, 1984, 1985, and 1987. These high levels of kindergarten enrollment, as well as high 9-12 grade level enrollment have created a "wave effect" districtwide; that is, a group of grades with larger enrollments (at the 9-12 and lower elementary levels) are passing through the system, separated by grades with smaller enrollments. This wave effect is important to consider in developing long-range enrollment projections.

Facility construction was nearly stagnant until the current district came into being in 1964. Between that date and 1977, District enrollment increased from 4,756 to 16,054 students. Consequently, 13 elementary schools, three junior high schools and three high schools were constructed and occupied during this 13 year period.

CUSD currently operates a total of 30 facilities: 17 elementary schools (K-6), four junior high schools (7-8), three high schools (9-12), and one exceptional-needs facility. A variety of special programs are also offered by CUSD including a Regional Occupation Program (ROP), a community education program, a continuation high school as well as various support services. The facilities which house these special uses are shared by one or more uses.

Junior high schools are utilized at a maximum of 85 percent of capacity and high schools are utilized at a maximum of 80 percent of capacity. Schools are utilized in this manner due to the unique nature of various secondary teaching stations which makes them unusable for academic purposes. For example, art rooms cannot be used by academic classes because they do not have clean work/study areas.

SB 327 requires that 30 percent of all future State-funded teaching stations be located in portable buildings. CUSD staff feels this is a reasonable standard to maintain and has utilized permanent and portable facilities to reflect this ratio as shown by Table 2-14. The excessive portable capacity shown at each grade level will be included in calculating utilization of new permanent and portable facilities in order to result in a districtwide 30% usage of portables by grade level. Currently, the District utilizes 269 portable classrooms. Developer-owned portables are provided in lieu of a portion of a SB 201 fee obligation which leased portables are paid for with SB 201 fees provided to the District by developers.

Table 2-14

Comparison of Permanent & Portable Capacities
Elementary Schools

<u>Permanent Capacity</u>	<u>Portable Capacity*</u>	<u>Portable Cap. %</u>	<u>Excessive Port. Cap.</u>
8,456	3,864	31.4%	172

*Does not include new all-portable schools

Junior High Schools

<u>Permanent Capacity</u>	<u>Portable Capacity</u>	<u>Portable Cap. %</u>	<u>Excessive Port. Cap.</u>
1,832	1,023	35.8%	166

High Schools

<u>Permanent Capacity</u>	<u>Portable Capacity</u>	<u>Portable Cap. %</u>	<u>Excessive Port. Cap.</u>
3,768	2,184	36.7%	399

(b) District Program and Non-Program needs

As with Saddleback Valley Unified, classroom space is utilized for instructional programs other than general or special education. Additional Capistrano Unified programs include computers, music and science, as well as library and administration usage.

Non-school uses are also accommodated at existing school sites as well as at other locations. These programs include adult education, a regional occupational program, an instructional media library and a satellite guidance center. The first three programs are all conducted on the Serra Continuation School site. This site is in the process of being acquired by the San Juan Capistrano Redevelopment Agency. In return, the city will be purchasing a new site for the continuation school, the adult education program, the regional occupational program, and the media library. The satellite guidance center is operated at a commercial center in downtown San Juan Capistrano. The guidance center makes available additional counseling for both parents and students.

In order to address facility needs of the District, a Growth and Facility Needs Committee has been established by the District. Members of the committee represent parents, homeowners, the city, the State Department of Education and the school board. The committee developed a series of recommendations for increased provision of needed facilities. In composing its recommendations, the Committee's impetus was the belief that all current and future CUSD students should be housed in schools which include adequate classrooms and important ancillary facilities such as libraries, computer labs and music rooms. The needs of Special Education students must also be considered when planning for future growth. In an effort to achieve a districtwide means of providing local school construction funding, the Committee is recommending that CUSD voters be asked to approve a local, broad-based and equitable means of funding the needed facilities. The preference would be use of Mello-Roos community facilities districts.

Besides classroom space, CUSD will have a pressing need in the next two-and-a-half years for a new transportation administration, storage and vehicle maintenance facility. The existing facility is being used to capacity and is currently inadequate in several areas. The following chart shows the transportation fleet which this facility presently serves and projects the size of the District's fleet in July, 1990.

<u>School Year</u>	<u>Routes</u>	<u>Transit Buses</u>	<u>Vans</u>
1987/88	83	65	31
1990/91	105	80	38

In order to serve a fleet of the size projected for 1990/91, a six-acre site would be required with bus/van and employee parking, maintenance garages and lifts, parts storage, drivers' lounge, administration offices, a paint booth and vehicle washing station.

(c) Enrollment Projections

As can be seen on Table 2-15, CUSD currently exceeds capacity on the high school level and is approaching capacity at the elementary level. Without the use of portable classrooms, CUSD would greatly exceed its capacity at all grade levels. The projected enrollment growth will push District facilities far beyond their existing capacities. Even with the prospect of SB 201/developer-provided portable classrooms, additional capacity will fail to make up the shortfall which is expected in July, 1990.

TABLE 2-15
Enrollment Projections

K-6	Sept. 1987 Pupils		Regular Capacity					Oct. 1990	
	Yr Rnd	Reg	Phys Ed	Perm.	Port.	Total	% of Reg. Capacity	Projection Range	
Ambuehl	351	549		476	420	896	97.2	1,009 -	1,204
Barcelona		576		420	196	616	84.8	588 -	627
Benedict		464			672	672		762 -	848
Bergeson		516			672	672		950 -	1,026
Castille		749		672	112	784	79.9	1,032 -	1,266
Concordia		670		616	56	672	69.6	834 -	862
Crown Valley		868		756	364	1,120	69.3	1,550 -	1,674
R.H. Dana		811		700	112	812	84.5	914 -	1,011
Del Obispo		724		672	84	756	81.7	929 -	1,028
Hankey		859		448	504	952	74.4	1,237 -	1,441
Ole Hanson		442		560		560	64.8	718 -	798
Las Palmas		432		364	112	476	76.8	763 -	849
Marco Forster		99		140	140			164 -	196
Moulton		851		672	224	896	67.9	1,400 -	1,578
Newhart		666		392	308	700	95.1	862 -	907
Palisades		622		616	28	644	74.3	810 -	838
San Juan		581		560	28	588	76.3	850 -	905
Viejo		513		532		532	73.1	663 -	729
<u>7-8</u>									
Marco Forster		892	112	666		778	77.7	901 -	960
Newhart JHS		639	112	71	476	659	90.6	742 -	789
Niguel Hills		919	112	833		945	69.4	1,377 -	1,477
Shorecliffs		664	112	143	547	802	78.4	820 -	876
<u>9-12</u>									
Capo Valley		2,451	240	1,320	816	2,376	102.7	2,670 -	2,852
Dana Hills		2,324	240	1,243	768	2,256	102.0	2,664 -	2,822
San Clemente		2,005	240	1,200	600	2,040	98.3	1,987 -	2,127
District Total								27,196 - 29,690	

TABLE 2-16

1990 Capacity Shortfall

	<u>Current Capacity Shortfall</u>	<u>Projected Enrollment Growth</u>	<u>Projected Capacity Shortfall</u>
Elementary School*	444	1,839 - 4,189	2,283 - 4,633
Junior High School	295	534 - 1,274	239 - 979
High School	55	840 - 2,971	785 - 2,916
*Does not include new all-portable schools.			

	<u># of Student</u>
Projected Elementary School Capacity Shortfall	2,283 - 4,633
Projected Capacity of New Portable Schools	1,344
Remaining Projected Shortfall	945 - 3,295

As indicated by Table 2-16 above, actual enrollment growth will possibly exceed these ranges because of migration into existing housing and the climbing birth rate. These factors have not been fully considered because the major emphasis in various studies thus far has been the impact of growth in CUSD generated by new residential, commercial and industrial development.

Enrollment projections involve a number of factors. The CUSD Facilities Master Plan focuses on enrollment projections as they are affected by residential development. The CUSD analysis is summarized below. Specific calculations can be found in the CUSD Master Plan.

Residential Development and Projected Students

Most of the vacant land in Orange County which remains to be developed for residential use lies within the boundaries of CUSD. The following chart shows the expected pattern of growth:

	<u>1/85 Estimate</u>	<u>7/90 Projection</u>
Total Dwelling Units	54,208	70,181

It is estimated that the total number of occupied dwelling units in CUSD will increase by 11,569 between January 1, 1988 and July 1, 1990. This growth is expected to be broken down by type of dwelling unit as follows:

	<u>Attached</u>	<u>Detached</u>	<u>Total</u>
Dwelling Unit Growth, 1988-90	6,193	5,376	11,569

In order to determine the significance of expected new dwelling units on K-12 enrollment, it is necessary to project the number of school-age children generated by residential developments. This is done by applying generation factors to each dwelling unit. Generation factors are an estimate, based on past experience, of the number of children at particular grade levels who can be expected to occupy specific types of new housing.

During the past three years, District staff has field surveyed approximately 2,500 new dwelling units within CUSD in order to determine generation factors for recently occupied housing. Coincidentally, several consulting firms were also in the process of generating demographic data for new residential communities in South Orange County. This research was funded by the Orange County Chapter of the Building Industry Association (BIA). The methodology utilized in this process included:

- (1) Selecting a large sample of occupied residential units by housing types;
- (2) Within each housing type, determining from applicable school district enrollment data the number of students in each grade level;
- (3) Dividing the number of students per housing category by the number of housing units within each category.

The results of both the CUSD and BIA surveys are summarized in Table 2-17.

TABLE 2-17
CUSD and BIA Generation Factors

	<u>Attached Units</u>		<u>Detached Units</u>	
	<u>CUSD</u>	<u>BIA</u>	<u>CUSD</u>	<u>BIA</u>
K-6	.073	.304	.258	.429
7-8	.015	.092	.082	.131
9-12	.048	.202	.101	.320
TOTAL	.136	.598	.441	.880

The generation factors produced by the BIA-sponsored study are considerably higher than those compiled during CUSD's field surveys. No data is readily available which could explain this difference. It is possible to conjecture that the generation factors utilized by CUSD staff are not precisely reflecting the demographic make-up of families currently moving into new housing within the District. Capistrano Unified staff is in the process of conducting new

surveys to verify the validity of their generation factors. Until these surveys are completed, it seems logical to assume that the CUSD and BIA generation factors, taken together, represent a range that may accurately reflect the demographic make-up of new South County residents.

When CUSD and BIA generation factors are applied to the number of new dwelling units expected to be occupied between January 1, 1988 and July 1, 1990, the resultant projections are as follows:

Projected New Students, 1987-1990

K-6	1,839 - 4,189
7-8	534 - 1,274
9-12	840 - 2,971

TOTAL	3,213 - 8,434
-------	---------------

Other factors examined by the District which contribute to the projection of new students and needed facilities included commercial/industrial development versus school enrollment; Orange County generation factors; and, existing housing versus new development generation factors. These factors and corresponding calculations are fully developed in the CUSD Capital Facilities Report (December, 1986).

Table 2-18 summarizes the attendance areas in which new schools will be needed by 1995. Six additional elementary schools and one junior high are indicated. These plans include two elementary schools, one in Forster Ranch (completed in November of 1987) and one in Laguna Niguel (projected to be completed in September 1988). Together these two schools will add an ultimate capacity of 1,400 students. Capacity for another 1,400 elementary students will be added over the following two years with the addition of two elementary schools, one in Colinas de Capistrano and another in Mission Viejo, in September of 1989 and 1990, respectively. Also, classrooms will be added to Capistrano Valley High School and Newhart Junior High School. The need for a new 7-8 facility should materialize only if Newhart Junior High is no longer available. This school is composed of portable classrooms supplied by the Mission Viejo Company in lieu of a part of its SB 201 fee obligation. The agreement under which the portable classrooms are provided will expire in June 1989. Should the District be unable to continue using Newhart Junior High beyond that date, a replacement facility would be required.

TABLE 2-18
Projected New School Need, 1992

Number of New Attendance Area Schools Needed

Elementary	
Castille	2
Crown Valley	1
Ole Hanson	2
Moulton	1
<u>TOTAL</u>	<u>6</u>
 Junior High	
Newhart JHS	1

(d) Facility Needs and Costs through 1995

CUSD and other school districts indicate that per-student costs for constructing new schools are as follows:

	<u>Permanent Construction</u>	<u>Portable Construction</u>	<u>Land Acquisition</u>
Elementary	\$5,675	\$5,100	\$3,400
Junior High	\$7,325	\$6,750	\$7,725
High School	\$8,755	\$8,200	\$6,755

Anticipated expenses of replacing the existing transportation facility include \$1 million for construction and \$1.8 million for land acquisition.

Additionally, the SB 201 fees collected to date will be insufficient to make the payments on 128 currently leased portable classrooms and cover the costs of the two new all-portable elementary schools, as shown below.

<u>Available SB 201 Fees, Nov. 1987</u>	<u>Lease Payments All Portables 1988-1990*</u>	<u>Funding Shortfall</u>
\$10,950,371	\$16,908,787	\$5,958,336

*Includes construction costs of new portable schools.

This data, when applied to the estimates of needed new facilities, produces the following projected costs:

Total Cost of Potential New Facilities

<u>Grade Level</u>	<u>Total Cost</u>
K-6	\$58,800,000
7-8	\$29,400,000
9-12	\$26,500,000
*Support Facilities	\$ 5,800,000
GRAND TOTAL	\$130,500,000

*Support Facilities include an education center and transportation center.

No local source presently exists which could provide CUSD with the funding to meet this tremendous need. The principal source of funding for school construction prior to 1987 was the State Leroy-Greene Lease-Purchase Program. Under this program, which has actually been fashioned into a grant program since the passage of Proposition 13, appropriate monies derived from bond issues and tideland oil revenues are distributed by the State Allocation Board to districts.

Historically, the Leroy-Greene Program is consistently underfunded. As of December, 1987, over \$700 million in school construction applications were ready for funding by the State. However, only \$320 million was available to pay for these pending projects.

Over the past several years, the Governor and the State Legislature have come to realize the pressing need of growing California school districts like CUSD for an additional source to finance the construction of new classrooms. Consequently, in September, 1986 the Legislature passed and the Governor signed Assembly Bill 2926.

Utilization of these fees is left up to the discretion of the local school district. For districts which intend to apply for State funding, a "local match" equal to the maximum allowable fees is required. It is calculated based on the number of building permits which are issued within the district from the time the application is approved until the school is completed and occupied. These fees are to be applied to State-funded school construction projects within the districts where the fees were collected.

Based on the estimates of residential, commercial and industrial development during 1988-1990, District staff have projected the probable revenue if AB 2926 developer fees are

levied at their maximum rates. Calculations show that the maximum anticipated AB 2926 fee revenues from residential construction will be \$23,453,255; commercial/industrial construction will yield only \$1,099,850. The following table compares District need to anticipated fee revenues for the period January 1, 1988 to July 1, 1990.

Cost of New Facilities:	\$130,500,000
Maximum Allowable Fees:*	\$ 24,553,105
Revenue Shortfall:	\$105,946,895

*Does not include potential Mello-Roos fees.

Obviously, the maximum amount of fees which can be collected will not meet CUSD's projected facility needs. As a result, most of the fees which are levied will represent the District's local match as CUSD submits construction applications to the State.

6) Orange Unified School District

(a) Current Enrollment and Facility Capacity

Formed in 1950, the District now serves nearly 25,000 children in grades Kindergarten through 12. District facilities include 24 active elementary schools, 6 active middle schools, 5 high schools (including a continuation school), administrative offices, and a Maintenance, Operations and Transportation (MOT) yard. In addition to these properties the District now holds several sites which are not in use as public education facilities. These include four closed schools, two undeveloped school sites, several small lots (developed and undeveloped), and (half-interest in) a 526-acre hillside property.

Projected development will approximately double the enrollment and number of school facilities within the District. The primary landowner in the District is The Irvine Company (approximately 20,000 acres). A large portion (roughly 25%) of the undeveloped land in the District is designated as agricultural preserve. However, a number of areas within the agricultural preserve have given notice of non-renewal and will be available for development within 1-8 years.

The regular K-12 enrollment of OUSD in October 1987 was 24,221. This enrollment is projected to increase 25 percent to 30,290 by the 1992 school year, with the majority of the increase occurring in the elementary grade level.

Junior high schools and high schools are utilized at a maximum of 85% of capacity. As with Capistrano Unified, schools are utilized in this manner due to the unique nature

of various secondary teaching stations which makes them unusable for academic purposes. For example, art rooms cannot be used by academic classes because they do not have clean work/study areas.

Table 2-19 shows a summary of capacities at OUSD elementary, junior high and senior high schools. Although the 1988 net capacities for all types of schools shows an excess, there are a few schools which will face minor shortages in capacity. These schools include 8 elementary schools and two high schools (Table 2-20). In addition to these 1988 net capacity deficits, 7 schools are within 5% of design capacity (5 elementary schools and 2 high schools). These and future shortages are addressed in the following discussion of district program and non-program needs.

Currently the District utilizes 130+ portables which constitute 13.2% of their total classrooms. Utilization of these portables is broken down as follows: 7.7% are elementary school classrooms; 9.2% are middle school classrooms; and 26% are high school classrooms. A large percentage of the existing portables fall within the 7+ year age category. The age breakdown is as follows: 37% were acquired before 1972; 56% were acquired between 1972 and 1981; and 7% were acquired between 1982 and 1988.

Table 2-19
Summary of Capacities

Elementary Schools			
<u>October 1987 Enrollment</u>	<u>1988 Projected Enrollment</u>	<u>1987 Capacity</u>	<u>1988 Net Capacity</u>
*12,479	13,145	14,160	1,015

Junior Highs Schools			
<u>October 1987 Enrollment</u>	<u>1988 Projected Enrollment</u>	<u>1987 Capacity</u>	<u>1988 Net Capacity</u>
3,575	3,679	5,826	2,147

Highs Schools			
<u>October 1987 Enrollment</u>	<u>1988 Projected Enrollment</u>	<u>1987 Capacity</u>	<u>1988 Net Capacity</u>
8,167	7,966	8,103	137

*Total does not include Santiago Hills Elementary.

Table 2-20

Summary of Schools Reaching Design Capacity

Elementary Schools

<u>School</u>	<u>October 1987 Enrollment</u>	<u>1988 Projected Enrollment</u>	<u>1987 Capacity</u>	<u>1988 Net Capacity</u>	<u>Percent of Design Capacity</u>
California	604	642	640	-2	100.31
Cambridge	635	653	630	-23	103.65
Crescent (Primary)	447	537	550	17	97.64
Fairhaven	436	491	445	-46	110.34
Fletcher	583	605	600	-5	100.83
Handy	702	758	755	-3	100.40
Palmyra	440	457	480	23	95.21
Panorama	334	382	360	-18	105.00
Santiago Hills	---	252	260	8	96.92
Serrano	442	454	470	16	96.60
Sycamore	508	536	510	-26	105.10
Villa Park	478	509	530	-21	96.04
West Orange	529	549	540	-9	101.67

High Schools

<u>School</u>	<u>October 1987 Enrollment</u>	<u>1988 Projected Enrollment</u>	<u>1987 Capacity</u>	<u>1988 Net Capacity</u>	<u>Percent of Design Capacity</u>
Canyon	2,082	2,070	2,037	-33	101.62
El Modena	1,976	1,919	1,933	14	99.02
Orange	2,088	1,961	2,027	66	96.74
Villa Park	1,883	1,878	1,862	-16	100.86

(b) District Program and Non-Program Needs

(In the following analysis, the high growth scenario, described in Section 6)(c) of this chapter, was used as the basis for determining need.)

Approximately \$9.2 million in reconstruction and expansion of older facilities is needed, including such items as upgrading of heating, installation of air conditioning, upgrading of fire alarms and lighting, and repair of roofs and ceilings and addition of portable classrooms in some areas.

Also under serious consideration is moving the Education Center out of its present location, due to the deteriorated structural condition of the existing building. There is no fixed timetable for this relocation, however, it is generally recognized that a move to an OSA approved facility should occur as soon as possible. Such a move would provide opportunities to combine existing functions from various sites.

Several possible alternatives have been discussed in this regard, including relocation of the existing facility to Barham Ranch, Windes Drive, Walnut, Peralta School, Katella School, McPherson School, or Parkside School. Currently under serious discussion is location of the Education Center, Joint Computer Center, the Instructional Media Center, Richland School, and Regional Occupational Program to the Peralta School site. In addition, the City of Orange has expressed strong interest in utilizing a portion of the Peralta site as a community center. Schematic site plans indicate that the current and future non-program needs of the District (estimated at 83,500 square feet of Education Center office space plus the other facilities listed), as well as the community center, could easily be accommodated on a site of about 11-1/2 acres. The total cost of the District's share of this program (excluding any land cost) is estimated at approximately \$9 million. It should be possible to substantially offset these construction costs through donation of the land necessary to build the community center. Further, the possibility of using redevelopment funding to construct the complex is now being explored, an alternative which could defer or eliminate any cash outlay by the District.

At build out, the District will also need a Maintenance, Operations and Transportation (MOT) warehouse facility as well as replacement of non-serviceable equipment (e.g., furniture, buses). A number of the District's school sites are in the 30+ age category and will continue to need substantial general rehabilitation.

(c) Residential Development and Projected Students

Residential Development

Recently, residential development within the District has occurred at a moderate rate. During the last three years, a total of 4,076 housing units have been constructed. However, a number of major development projects, including a 7,000 acre, 14,000 unit planned community in East Orange, are in the plan-approval process, indicating that a significant amount of new construction could occur over the next several years.

District staff regularly surveys major developers within the District to determine the expected phasing of various major residential projects. In the summer of 1986, developers were asked how many units would be built, by unit type, for each of the next 5 years. Although clearly an estimate, the survey revealed that nearly 10,000 homes are expected to be completed by the end of 1991.

District staff have concluded that (1) at least the moderate rate of growth experienced in the past will continue, and (2) the potential exists for intensive development of up to 34,500 units within the District's jurisdiction on land not now restricted to agriculture.

The District also surveys housing tracts 1-5 years after they are occupied to determine the number of students generated by various housing types and, for particular areas of the District, "Student Yields", as they are called, are then applied to anticipated developments to determine the number of students which would be generated by these projects. From these numbers the school facilities needed to serve that particular development are calculated. Such calculations are best used to compute near-term growth because population trends (e.g., birth rates, migration) and housing market changes are likely to produce substantial cumulative changes over time. However, understanding that some flexibility in planning is necessary, general yields can be used to tentatively plan school needs throughout the growth area of the District.

Projected Enrollment

Three different growth scenarios are discussed in the OUSD Facilities Master Plan: minimum growth, moderate growth, and high growth. Given the level of urban development throughout Orange County, there is little question that the District's enrollment will grow. Although enrollment has declined in the past, enrollment levels over the past 5 years indicate that the trend has stopped. A major factor in determining how much growth will occur is the degree of construction and its timing.

A minimum growth scenario assumes that the new housing market is softened considerably by down turns in the area economy. Units already under construction would be finished and absorbed slowly. Total housing construction would be limited to about 100 units per year districtwide. Construction of room additions, a major source of new enrollment, would virtually stop. Combining new development and internal growth, this scenario represents an increase of 78 elementary students, 15 in middle school, and -1,366 in high school (due to graduation of large classes combined with enrollment of smaller classes). At the elementary level, an additional 2 classrooms would be needed.

The moderate growth scenario assumes that an average of 767 dwelling units (including both new tracts and "infill" development) would be constructed each year. This scenario also takes into consideration the affects of in-migration of Hispanics. Although difficult to quantify, it is theorized that if the economy of Mexico improves, the current influx of Hispanics into the District could slow or even reverse, altering District growth patterns. On the other hand, absence of significant economic change for the better could perpetuate the influx of illegal aliens, much as has been in the past.

Under the moderate growth scenario, total district growth from both new development and internal population changes would generate approximately 1,571 new elementary students, 418 middle school students and a decline of 480 students in high schools.

The high growth scenario anticipates construction of about 1,500 dwelling units each year. This represents about 220 percent of the moderate growth figures, but more closely approximates what actually occurred in 1987. Changes in tax laws, which lower tax rates but retain home-related deductions such as mortgage interest, may continue to spur growth. Other factors, such as perceived increased commercial/industrial development and long-term growth controls, may also increase near-term construction of homes.

Under the high growth scenario, elementary enrollment would increase by some 3,853 students, middle school by over 538, and high school by over 1,543 students in 5 years. Much of the growth anticipated here occurs within the developed area of the District and does not represent students from new residences.

Realistically, buildout of over 46,000 units will probably occur in the District over a period of 20-30 years. This is only an approximation since many policy decisions have not yet been made. However, at current student yields, these

units would generate some 15,000 elementary students (25 schools), 4,300 middle school students (5 schools), and 8,600 high school students (4 high schools).

Table 2-21 is a summary of current and projected enrollment projections for OUSD's 26 elementary schools (including Santiago Hills Elementary projected to open in 1990 and Canyon Rim Elementary projected to open in 1991), 6 junior high schools, and 5 high schools (including Richland Continuation School). These projections are based upon the high growth scenario.

Commercial and Industrial Impacts

Commercial and industrial growth within the district clearly impacts the need for new and rehabilitated school facilities. Nearly 1.8 million square feet of new commercial/industrial space was permitted within the District in 1987 alone, primarily within the City of Orange. But it is not the new buildings which generate new students within the District, it is the employees in new jobs.

The Southern California Association of Governments (SCAG) reports that the average commute for the North Orange County area is 20 minutes. The Irvine Company, a major landholder and marketer of commercial and industrial properties within the County estimates that a full sixty percent of their tenants' employees resident within 15 minutes of their place of employment. Nearly all of the East Orange/Anaheim Hills growth area lies within the perimeter. This growth area accounts for roughly 70% of the new housing stock within the commute perimeter. Thus there is a 42% ($0.60 \times 0.70 = 0.42$) likelihood that new and/or relocated employees of commercial and industrial developments within the District will reside there.

Table 2-21
Current and Projected Enrollment Summary
1988 - 1992

K-6	October 87 Enrollment	Projected					1987 Capacity
		1988	1989	1990	1991	1992	
Anaheim Hills	497	491	497	514	533	565	504
California	604	642	718	787	885	999	640
Cambridge	635	653	683	721	779	830	630
Canyon Rim				544	563	548	
Crescent Primary	447	537	617	442	498	561	550
Crescent Intermediate	502	524	537	450	452	467	820
Esplanade	462	457	452	446	451	466	540
Fairhaven	436	491	546	597	662	711	445
Fletcher	583	605	636	653	658	642	600
Handy	702	758	805	855	886	932	755
Imperial	455	498	540	510	566	640	555
Jordan	440	462	466	462	464	439	490
Lampson	699	690	697	705	717	718	780
La Veta	625	630	658	691	750	797	670
Linda Vista	491	521	551	585	624	692	570
Nohl Canyon	460	463	464	469	486	491	510
Palmyra	440	457	462	450	452	449	480
Panorama	334	382	411	458	482	508	360
Prospect	477	466	472	483	497	509	560
Riverdale	347	339	337	337	346	354	470
Santiago Hills		252	290	341	404	486	260
Serrano	442	454	468	558	608	653	470
Silverado	127	141	170	196	240	299	150
Sycamore	508	536	572	620	682	748	510
Taft	624	638	611	602	600	609	735
Villa Park	478	509	529	540	555	577	530
West Orange	529	549	558	582	598	605	540
	12,479	13,145	13,767	14,598	15,440	16,295	14,160

7 - 8	October 87 Enrollment	Projected					1987 Capacity
		1988	1989	1990	1991	1992	
Cerro Villa	818	825	833	855	838	850	1,020
El Rancho	874	947	942	945	998	1,048	1,078
McPherson	424	428	411	405	391	403	969
Portola	513	533	569	571	570	633	850
Santiago	429	429	481	556	586	589	921
Yorba	517	517	558	596	624	620	988
	3,575	3,679	3,794	3,928	4,097	4,143	5,626

9 - 12	October 87 Enrollment	Projected					1987 Capacity
		1988	1989	1990	1991	1992	
Canyon	2,082	2,070	2,311	2,573	2,857	3,010	2,037
El Modena	1,976	1,919	1,993	2,054	2,090	2,171	1,933
Orange	2,088	1,961	1,938	2,052	2,180	2,341	2,027
Villa Park	1,883	1,878	1,950	1,998	2,119	2,192	1,862
Richland	138	138	138	138	138	138	247
	8,167	7,966	8,330	9,115	9,384	9,852	8,103

In addition, AB 2071, which became effective on January 1, 1987, provides that any parent or guardian employed within the District has, by virtue of that employment, established residency within the District and may enroll students in District schools. In other words, parents can send their children to school where they work rather than where they live. As of March 3, 1987, there were 177 students attending schools within the District whose residences are outside of OUSD. This number is expected to grow significantly as the change becomes more widely known. Uses such as warehousing have less impact on enrollment because they have few employees. However, office uses and various manufacturing uses are likely to have more significant impacts.

(d) Demographic Changes

Second only to growth from new residential construction, changes in the ethnic makeup of the District's population are central in predicting school enrollments. Fertility rates are generally lower than they historically have been. However, cultural differences contribute to differing family sizes, educational program focus, and drop out rates. Although the population of children and young adults will decrease proportionally as the general population ages, in raw numbers, these age groups will nonetheless increase considerably.

The predominant minority within the District is Hispanics, comprising over 17% of the total enrollment. Asians comprise about 9%, with Blacks equaling only 1.6%. Both Hispanic and Asian percentages are increasing, with a corresponding reduction in white enrollment.

Table 2-22

Hispanic Population and Enrollment
1980-1985

	<u>1980</u>	<u>1985</u>	<u>% Change Over Period</u>
OUSD Population (1)	18,214	20,945	+15.0
OUSD Enrollment (2)	3,262	3,813	+16.9

- (1) Source: 1980 Census and Orange County Demographer
(2) Source: OUSD CBEDS enrollment counts

What Table 2-22 shows is that districtwide Hispanic population is growing at an overall rate of 3% per year and that districtwide Hispanic enrollment is growing nearly 13% faster than the overall population. Certain areas of the District, notably the older areas of the City of Orange,

have a significant concentration of Hispanics. The Hispanic population in OUSD has grown at 2 to 2-1/2 times the overall rate of growth.

Any area of the North County can be expected to show a 10% growth in Hispanic population over the next 5-year period. This condition describes most of OUSD as well. However, Central Santa Ana and certain census tracts in Central Orange show significant additional growth. It is fully expected that this trend will continue and will likely increase through the remainder of this century. The Population Reference Bureau predicts that the school-age children needing non-traditional education programs will increase dramatically along with this immigration/aging trend.

Data regarding the Asian population indicates that it too will grow dramatically, over the next 50 years. In Orange Unified, enrollment of Asian students appears to be growing at a rate of 0.75% per year. With a growth rate of only 1/4 that of the Hispanic population and a tendency to reside throughout the community (as opposed to concentrating into ethnic communities), Asians will have significantly less impact on school enrollments.

(e) Facility Needs and Costs

(The following discussions are based upon the high growth scenario.)

Short Term Facility Needs

To accommodate those students projected in the high growth scenario, the facilities shown in Table 2-23 will be needed within the next 3 to 5 years.

Table 2-23

Short Term Capital Facility Needs

<u>Facility Needs</u>	<u>Estimate Costs</u>
2 elementary schools	\$6,530,000
Renovation and Reconstruction	\$9,224,000

The District currently owns an elementary school site at the intersection of Canyon Rim Road and Serrano Avenue in the east Anaheim Hills area. The site is unimproved, but will be graded with the first phase of development of the "Highlands" project, which it will serve. It is anticipated that this school will have a capacity of 800 students, 30% of which will be accommodated in relocatable classrooms, per

State law. It is anticipated that this school will be needed by September, 1991 and construction costs (consisting of structural improvements only) are estimated at \$5.2 million.

In the Upper Peter's Canyon area of east Orange, a school site has been reserved within the "Santiago Hills" development of The Irvine Company (TIC). This school, which is scheduled to open in September 1990, will serve 600 pupils. TIC will participate with the District in the construction of the new facility. It is estimated that the District's share of the development cost will be 19% of the total (\$1,330,000).

In the Orange High attendance area, a capacity crisis is expected due to the capacity limitations at existing facilities. In this area of the District, sites for new schools are severely limited due to the cost of land (estimated at \$5 million for an elementary school site). A variety of options exist, such as combining Portola and Yorba Middle Schools onto one campus and using the open campus as an additional elementary school (K-6) or creating primary (K-3) feeder schools for a new intermediate (4-6) school. Both of these appear to be temporary solutions, the effectiveness of which will diminish as area wide enrollment increases. Other alternatives include moving to a year-round program in this part of the District and/or reopening the Parkside School. In the case of year-round, affected schools would need to be fitted with air conditioning, improved heating, and other energy management programs prior to conversion to a year-round program. The estimated cost of this work would be \$900,000.

Mid-term Capital Need

Growth during the period between 1991 and 1996 will occur both in the east Orange area along Santiago Canyon Road and the extension of Weir Canyon Road, and in the east Anaheim Hills (Wallace Ranch and Oak Hills Ranch). The pattern and pace of growth will depend largely on planning decisions to be made in the near term (i.e., next two years) regarding routing of the Eastern Transportation Corridor, the Foothill Transportation Corridor through north Irvine and Tustin, and growth management in Orange County.

In the mid-term, up to three additional elementary schools, one junior high school and one high school could be needed, with an estimated cost of \$24.5 million. An additional \$10 million in school reconstruction will be necessary. Over that same period, School Facility Fee revenues estimated at \$7.5 million and lease revenues of up to \$5 million (altogether, a total of \$12.5 million), could be available to the District.

Long-term Capital Facilities Needs

Orange Unified's growth is dependent upon the development of two communities: Anaheim Hills and the City of Orange. In the East Orange area, a massive planning effort now underway will soon define growth which will occur over a period of several decades. In the older parts of the City of Orange, growth will occur more or less along established lines.

7) Future Prospects

Within the next 15 years (the projection period), school facility legislation will undoubtedly be amended to reflect changing practices. In particular, AB 2926 is projected to be amended within the next year.

Immediate facility needs will also be addressed within the next few years. All three school districts described in this section have projected the need for new schools to come on-line within the next five years.

Implementing the master plans will require the Districts to designate new sites for schools and to evaluate alternative approaches for expansion of existing facilities. Expansions on existing sites will also need to be evaluated.

Provision of adequate school facilities is a countywide concern which will need to be addressed not only by school districts but by County and city governmental agencies as well as the concerned public. Implementation of master plans will facilitate provision of these much needed facilities.

g. Child Care Improvement Program

1) Introduction

Child care has arisen as yet another issue exhibiting major local and regional imbalances. Child care imbalances occur between the need for and provision of adequate and affordable facilities. With a significant increase in women in the labor force, the rising numbers of single-parent households, the rise in dual-income families, and the increase in the number of children (infants through school-aged), the supply of child care has not kept pace with the accelerating demand. Orange County has the second greatest child population in the state, and the County Administrative Office estimates it will increase 17% over the next decade. The child care improvement program in Chapter Ten of this volume addresses measures which not only help to alleviate current pressures but also addresses the future demands.

It should be noted that although discussion of child care in this element highlights opportunities for increased County participation, it is acknowledged that local schools, private

agencies and non-profit entities play the primary role in the provision of child care facilities and services. For example, many of the school districts in Orange County participate to some degree in latch-key or Extended Day programs. These programs have been established to provide a safe, nurturing environment for the care of children before and after school. Additionally, the programs serve as support for the family and the school in guiding children's growth and development.

2) Current Conditions

On October 27, 1987, the Board of Supervisors directed the Environmental Management Agency (EMA) in consultation with the County Administration Office (CAO), the Social Services Agency (SSA), and the General Services Agency (GSA) to investigate the feasibility of pursuing a Child Care Improvement Program in the unincorporated County and the Santa Ana Civic Center area. Four areas of investigation were identified as follows: amending the County General Plan; integrating child care components into major employment areas; considering the siting of child care facilities in parks and on County surplus property; and providing child care to employees in the Civic Center area.

The agencies mentioned above form the Child Care Improvement Program Task Force. The Task Force has been actively pursuing the Board-directed investigations since October 1987 and will present a full report on their findings to the Board in late 1988.

Additionally, on August 3, 1988 the Board approved an amendment to the Land Use Element which serves as a mechanism to ensure that child care facility proposals shall not be precluded from any land use category, but shall be subject to review. Part of this amendment is the Child Care Improvement Policy. The purpose of the Child Care Improvement Policy is to encourage and facilitate provision of child care facilities to address the growing County demand. Implementation of a Child Care Improvement Policy is essential to achieve a balance between supply and demand of the various types of child care facilities. Supply and demand for child care services will be monitored through the Annual Monitoring Report process.

3) Future Conditions

Due to changing demographic trends, there exists a countywide shortfall in filling child care demand which is expected to increase significantly over the next decade. In order to address this shortfall, it will be necessary to examine three components of child care needs. Infant care refers to child care for children 0-2 years old; preschool care is primarily for children 2-5 years old; and Extended Day Care is for school age children after and/or before normal school hours. Provision of sites for the first two types of child care should be encouraged in concentrated employment areas for ease of access for working

parents (however, some communities may have sufficient demand in residential areas). Extended Day Care facilities are more appropriate near residential areas and school facilities.

The Child Care Improvement Program Task Force will continue to examine child care issues as directed by the Board. Results of their research will be reported back to the Board at a future date.

CHAPTER THREE: CONSTRAINTS AND OPPORTUNITIES

A. Overview

This section identifies existing and potential constraints to and opportunities for satisfying the projected public facilities demands for Orange County presented in Chapter Two. While these constraints do not always represent absolute barriers, they may inhibit the timely achievement of key public facility service objectives. The implementation policies and programs contained in Chapters Four through Ten are intended to eliminate or minimize these constraints and utilize the identified opportunities.

B. Constraints

1. Environmental Constraints

- a. Environmental Quality: Statutory requirements protecting environmental quality (e.g., NEPA, Federal 208 Water Quality Standards) may often directly and indirectly result in project delays, and other requirements which are associated with these mandates. Further, added costs may occur in order to comply with environmental standards such as air pollutant or water quality regulations, which result from these mandates.
- b. Facility Siting and Implementation: Due to urbanization, it has become increasingly difficult to site new public facilities or expand existing facilities in Orange County. This situation is particularly true for noxious facilities such as wastewater treatment plants, landfills, and airports; but it also remains an issue for flood control and highway facilities.

2. Fiscal Constraints

At the same time that operating and capital expenses have risen, many traditional revenue sources have been severely cut and spending limitations have been placed on local governments, thus leaving them faced with reduced revenues at a time of growing need. Major fiscal factors constraining local governments today in the provision of basic services and facilities include:

- a. Proposition 13: The passage of Proposition 13 in 1978 seriously limited local property taxes as a major revenue source for local governments. Whereas in fiscal year 1974-75 property taxes provided 35 percent of total County revenues and 24 percent of city revenues, the amount dropped to 20 percent and 14 percent, respectively, in fiscal year 1979-80.
- b. Proposition 4 (the Gann Initiative): Passage of the Gann Initiative in 1979 placed constitutional limitations on the annual appropriations that can be made by each state and local government entity. These appropriations are limited to those made in fiscal year 1978-79. Further, they can only be increased in any one year in proportion to inflation rates or personal income increases

(whichever is lower) and increases in population. Excess revenues over appropriation limits must be returned to citizens through reduced fees and taxes.

- c. Reductions in Bonding Capabilities for Capital Improvements: In the past, general obligation bonds were used extensively to finance those capital improvements for which it was not practical or desirable to recoup costs from user fees. Proposition 13 has inhibited the ability of local governments to raise property tax revenues to meet financial obligations, by requiring a positive two-thirds vote of the qualified electorate. This situation has limited seriously the ability of governments to issue general obligation bonds.
- d. Reductions in Federal Aid to Local Government: Federal assistance has been a prime mover in both state and local budgets, accounting for 20-25 percent of these budgets, particularly since the late 1960s. Federal aid to state and local governments rose from \$20 billion in 1970 to nearly \$88 billion in 1980. However, significant federal budget cuts have been implemented over the last several years. Although many of the cuts affect social programs, they also affect grants available for operation of public service systems and capital improvements. Mass transit operating subsidies and construction grants for wastewater treatment facilities are potentially the hardest hit grant programs in the public service category.

The fiscal ability or inability of local governments and special districts to provide additional services and facilities will in large part determine the degree to which the County can grow. Historically, the availability of public services and facilities has determined frequently the location, timing and intensity of growth. Given the serious fiscal problems currently facing local governments, it is not at all certain whether the County will be able to accommodate the planned levels of growth unless major fiscal and programmatic changes are forthcoming and/or priorities and standards are reset. This variable makes the constraints described in this section significant.

3. Governmental Constraints

- a. Development Objectives and Priorities: Competing public needs can result in conflicting priorities and programs. Many issues such as cost/benefit and future impact of public facility programs will need to be addressed. An issue of increasing public concern is the high cost of housing and its relationship to governmental regulation and fees, particularly those necessary to ensure public facility implementation.
- b. Intergovernmental Coordination: It is especially important for the County, cities and special districts to continue to communicate and cooperate with one another in order to strive for common goals and objectives because public service facility funding and site location could easily become a volatile issue.

4. Economic and Market Constraints

- a. County Growth Pace: The pace of growth in Orange County and the surrounding counties will affect the pace at which new public facilities will be needed. If growth occurs at the expected pace, there may have to be a curtailment or an elimination of facilities. Curtailment or elimination of certain public services because of budget shortfalls may reduce development in Orange County and shift some growth into outlying counties. Also, the high cost of living in Orange County, and the existence of competitive affordable housing opportunities in surrounding counties, may also shift growth.

C. Opportunities

1. Environmental Opportunities

The amount of undeveloped land in Orange County, particularly in the unincorporated area, can provide unique opportunities to consider and address public service facilities concerns through innovative land use planning. Portions of undeveloped Orange County may be ideal sites for certain public facilities because they are sparsely populated, are within County unincorporated areas and yet are within service distance of those communities with service needs.

2. Governmental/Fiscal Opportunities

- a. Innovative Financing: The provision of basic public facilities and the maintenance of current levels of service is an objective the County of Orange is attempting to meet by expanding the use of existing financial resources and identifying new resources to supplement existing ones. These resources include the increased use of: user fees; nonproperty-based taxes and miscellaneous revenues; developer financing for on-site and off-site capital improvements associated with new development; benefit assessment bonds; revenue bonds; lease financing for special facilities; redevelopment financing which relies on public/private sector relationship; and joint funding for improvements such as signals at intersections, and road widening.
- b. Coordinated Planning Objectives and Standards: Orange County encourages long-range planning for the coordination of state and local government and private sector aims with the objective of phasing development according to the availability of adequate public services and facilities and the availability of financial resources for the construction of sufficient new facilities. The County promotes and supports planning efforts which emphasize increased system efficiency including programs which: contract various services to the private sector when they can be provided at less cost; shift some responsibility for service provision to non-governmental entities such as homeowner organizations; and promote the consolidation of services and the use of new technologies to reduce demand for new facilities.

- c. Balanced Community Objectives: The planned community concept embraced by Orange County encourages the development of balanced land use plans in the unincorporated area. Balanced land uses serve to address concerns regarding transportation facility deficiencies and promote the efficient use of other facilities (e.g., water/wastewater).
- d. Governmental Incentives: The County has considerable flexibility to provide incentives for efforts that do not threaten public safety. This flexibility, coupled with increasing financing incentives for infrastructure provision and other public facility activities, can create a positive environment for facility implementation efforts, both public and private.

3. Economic and Market Opportunities

The presence of large-scale landholdings in southern Orange County has facilitated innovative land use planning. The investment potential of the area and the prudent financial practices of the development industry have allowed for the provision of public services and facilities in accordance to need. Continued development phasing and funding will provide for maintenance of existing and provision of new facilities to support projected growth demands.

CHAPTER FOUR: PUBLIC SERVICES AND FACILITIES: General Issues and a Comprehensive Strategy

A. Overview

The Public Services and Facilities Element focuses on those publicly managed services and facilities which have a direct influence on the distribution and intensity of development that can be accommodated through the utilization of existing technologies and assumptions that are used to determine adequate service levels. These services include flood control, waste management, water and wastewater, transportation and community services (fire protection, library, sheriff patrol, street lighting and CSA services). School facilities will be included in a future amendment of the PSF Element.

The Public Services and Facilities Element directly responds to the demand generated by the OCP III Projections. Without the entire range of services and facilities represented by this element, development is plainly infeasible. It is important that the quality and quantity of the services and facilities provided be geared to the nature and intensity of the development that is prevailing and/or projected. But most important, that facilities and services be developed in a timely manner so as not to impact the capacity and ability of the County to provide the service.

B. Emerging Issues

Three key issues have emerged during the preparation of this element. They are:

1. Fiscal Constraints in the Provision of Public Services and Facilities

Since the late 1970s, the County and its Special Districts have faced the threat of significant cost-revenue shortfalls in the provision of public services and facilities. Capital improvements and operation and maintenance expenses have risen at an escalating rate as a result of: 1) general inflation, in combination with rising wage levels and employee benefit programs; 2) expansion of public service systems to accommodate the growing population base of the region; 3) the rising real costs of constructing and expanding capital facilities, at rates which exceed general inflation, have made it increasingly more expensive to furnish public works; 4) aging infrastructure in need of rehabilitation; and, 5) the inability of local government and public service entities to raise revenues through traditional funding mechanisms (e.g., General Obligation Bonds, etc.) to pay for the initial capital costs for needed new facilities.

The cumulative effects of both revenue reductions and spending limitations present serious problems for the County. The response to these problems has, and is, taking many forms. For one, the County is attempting to expand the use of existing financial resources. Secondly, the County is identifying new resources to supplement existing sources so that current levels of service will be maintained and basic infrastructure provided. Innovative public facility funding techniques,

direct cost to users, and private developer participation are potential alternative funding sources.

The County has responded further by reducing expenditures by reducing certain services, contracting out services to the private sector when they can be provided less expensively, deferring maintenance on public facilities, and postponing capital improvements.

The magnitude of fiscal constraints varies by public service function, depending on the traditional source of revenues used by a service, and the extent to which these revenues have been affected by recent fiscal policies. In addition, the magnitude of fiscal problems depends upon the mix of relied upon revenues.

Table 4-12 illustrates the extent of revenue requirements and presents estimates of total County public facility costs from 1982 to year 2000. This table presents capital, operation and maintenance cost and total cost by system in 1982 dollars.

2. Public Facility Siting and Implementation

- a. Siting: There are numerous issues associated with siting and implementation of public facilities. Foremost among them is the scarcity of potential sites due to the increase in the County's population and resultant shift in land use from primarily agriculture and open space to residential, commercial and industrial. Many public services require the physical plant be located in, or near, the service area due to increased service costs associated with distance. For instance, fire and police facilities should be located within the safeguarded communities in order to provide service within a reasonable response time. Unfortunately, other facilities, such as disposal sites, must also be located within reasonable distances from communities because of the high cost of long distance hauling and the effect of distance on facility operation efficiency. Public opposition is often the primary response to such facilities. Potential facility sites are scarce because the unavoidable environmental impacts of certain facilities excludes many sections of the County. Many facilities require large sites and the competition for available land among other types of needs and uses, combined with the high cost of land in Orange County, may exclude some sites from consideration.
- b. Phasing of Facility Improvements: Public facility phasing should respond to existing and projected demand so that the implementation of facilities will accompany development. This means that facilities should be planned well ahead of time service is needed because the process is lengthy, and many service system facilities may face considerable obstacles before construction.

3. Intergovernmental Coordination

The Public Services and Facilities Element is meant to serve as a guide to direct local government decision-making in public facility-related matters, and also foster coordination among all involved levels of

government. The sheer number of service systems, their associated programs, and the numerous agencies involved in program implementation is reason enough to recognize that a coordinated effort of agencies involved in the same service systems is essential. The increasing scarcity of fiscal resources and decreasing opportunities for facility siting amplify the need for increased coordination between districts, cities, and the County's public facility programs. Continued cooperation with state and federal agencies will also be necessary, especially in the areas of transportation, water and wastewater.

TABLE 4-12

FACILITY REQUIREMENTS - 1982 TO YEAR 2000*
(in Millions 1982 Dollars)

*Preliminary Estimates; Subject to Revision.

System	Capital	O&M	Total Cost
Water/Wastewater ¹	\$ 1,369	\$ 2,150	\$ 3,519
Parks ²	152	295	447
County Facilities ³	224	717	941
Highways	2,295	935	3,230
Transit	1,365	1,500	2,865
Flood Control	257	113	370
Santa Ana River Flood Project	1,260	4	1,264
Approximate Total to Year 2000	\$ 6,922	\$ 5,714	\$12,636

Source: County of Orange, Comprehensive Public Facility Finance Program - Phase I Report.

Notes:

This table is for informational purposes only and is not a part of this Element.

¹Water/Wastewater data for Northeast and Southeast Orange County areas only (generally RSAs B, C, D, E, and a portion of F).

²Includes all types of regional recreational facilities.

³Includes Waste Management and Airport Facilities.

C. Goals, Objectives, and Policies

1. Goals and Objectives

Goal 1: Provide a network of public services and facilities that are integrated, complementary, and compatible with other countywide regional land use and development goals.

Objective 1: To plan public services and facilities consistent with the Orange County General Plan.

Goal 2: Encourage the funding and development of public services and facilities to meet the County's existing and future demand.

Objective 2.1: To achieve target service levels through the coordination of funding programs and planning efforts.

Objective 2.2: To develop adequate and dependable public services and facilities which support existing and future development as defined by the General Plan.

2. Policies

- a. Phasing and Funding: To implement public facilities in a manner that supports the implementation of the overall land use development policies and the needs of County residents and is consistent with the funding capabilities of the County. Proponents of planned communities or tentative tract or parcel maps in conventionally zoned communities shall provide ultimate, fair share infrastructure improvements for regional services as required by County and service provider plans in effect at the time of project implementation. Proponents shall also participate, on a fair share basis, in provision of community level facilities. The County and service providers shall strive to provide facilities and services necessary to complete the service system.
- b. System Programming and Funding: To make maximum use of available funding sources, including federal, state, and local, as well as support necessary increases in such sources and require private participation in assessment/fee and other programs established by the Board of Supervisors in order to implement necessary facilities.
- c. Land Use Compatibility: To coordinate facility planning in a manner compatible with surrounding land uses and to review planned land uses adjacent to facilities for their compatibility with facility operations.
- d. Intergovernmental Coordination: To encourage and support a cooperative effort among all agencies towards the implementation of necessary public facilities through intergovernmental activities.

D. Implementation Programs

1. Comprehensive Facilities Financing Program

- a. Action: Continue to work on the development of a facilities funding and financing plan to establish priorities for County public facility needs, and the development and application of a proper mix of methods to foster economic development.
- b. Discussion: The CAO has completed a Phase I document which is the first iteration towards the ultimate goal of developing a County of Orange Comprehensive Facilities Financing Program which will set forth a facility improvements programming process, a facility budgeting process, and strategic implementation plan.

The program is intended to integrate intermediate and long-term funding requirements and revenue sources for the construction, operation and maintenance of County public facilities into a comprehensive program which will enable the County to meet its future needs in the most cost-effective and resource conserving manner. EMA will continue to support this effort and integrate these activities into the Advance Planning Program.

- c. New or Existing Program: Existing
- d. Implementation Schedule: Ongoing
- e. Responsible Agency: CAO
- f. Source of Funds: County General Fund

2. Master Plan of County Facilities (MPCF)

- a. Action: Continue the Master Plan for County Facilities (MPCF) process and other related planning documents prepared annually.

EMA will continue to review these documents to determine any necessary Land Use Element and Community Profile Amendments.

- b. Discussion: The Master Plan for County Facilities (MPCF), prepared by the County Facilities Management Team (CAO, GSA, and Auditor-Controller), presents a detailed five-year plan for (a) major (greater than \$500,000) capital projects, and (b) major consolidation/relocation proposals identified by various County Agencies and Departments. The majority of the projects represent physical improvements required due to County growth, demand based or adopted growth projections contained in the General Plan, or the maintenance requirements of capital facilities. Projects included in the Plan are advisory only and are intended to guide consideration of projects through the budget process.
- c. New or Existing Program: Existing
- d. Implementation Schedule: Ongoing
- e. Responsible Agencies: Various agencies
- f. Source of Funds: Various sources

3. Growth Management Program

- a. Action: 1) Continue with and expand public services and facilities section of the Growth Management Program (Land Use Element Appendix A) for the purposes of ensuring the provision of necessary services and facilities in a timely manner. 2) Continue to require Annual Monitoring Reports (AMRs) which evaluate projects on an annual basis, to the extent to which project phasing and implementation is consistent with public facilities and community balance goals, and adopted General Plan and Planned Community policies.
- b. Discussion: Presently, the County requires confirmation of facility adequacy from certain service agencies (e.g., water) prior to approval or extension of approval of tentative tract maps. This provides assurance that the Agency is capable of coordinating delivery through construction of necessary facilities. However, these letters are usually conditional upon funding or implementation actions of the project proponent. Project implementation phasing is dependent upon the status of facility planning and ongoing negotiations between the project proponents and the service agency.

The County of Orange General Plan, Land Use Element, provides for the phasing of development consistent with the adequacy of public services and facilities (Policy 2: Phased Development). In the case of many facilities, the absolute necessity of certain services to development will ensure adequate incremental capacity. However, the County should be appraised of the status of ongoing planning, agreements, and delivery phasing as it ultimately may determine the phasing of development and the need for other support services.

Public service demand and facilities capacity information is requested with the submittal of Annual Monitoring Reports (AMR) prepared by Planned Community development proponents (see Land Use Element Implementation Programs). This information is compared to facilities plans prepared by service agencies to monitor public service delivery and to help update small area demographic projections. When discrepancies are found between proposed development activity portrayed in the AMRs and service delivery planning documents, further information will be requested in subsequent AMRs or, if necessary, in development processing documentation.

This program is closely related to Program No. 7 (DMP), with a more direct focus on the review of specific projects.

- c. New or Existing Program: Existing
- d. Implementation Schedule: Ongoing
- e. Responsible Agencies: CAO and EMA
- f. Source of Funds: Various sources

4. Evaluation of Public Service System Objectives and Alternative Management Strategies

- a. Action: Continue ongoing evaluation of existing public service system criteria and service objectives and periodically propose alternative management strategies to the Board of Supervisors as part of PSF Element amendment process, and the Development Monitoring Program (DMP).
- b. Discussion: Future growth in Orange County requires the delivery of adequate services to all residents at an ever increasing expense to the County and Special Districts. The County and its Districts are presently facing serious fiscal constraints in generating revenue to pay for needed services and facilities. An ongoing review of existing service criteria and objectives, and alternative management strategies (e.g., Transportation System Management (TSM), waste recycling and reduction techniques), which could serve to meet these objectives will be conducted as a continuation of the overall PSF work effort.
- c. New or Existing Program: Expand existing program
- d. Implementation Schedule: Commence upon adoption of PSF Element
- e. Responsible Agencies: EMA and CAO
- f. Source of Funds: Various funding sources

5. General Plan Consistency Program

- a. Action: 1) Continue review of public and private projects for consistency with the Orange County General Plan. The existing consistency review process will be updated in the Advance Planning Program Manual to reflect the Public Services and Facilities Element. 2) Evaluate current implementation practices, including conditions of approval, as part of the Public Services and Facilities Element-Phase II process.
- b. Discussion: This program satisfies requirements that private and public projects be consistent with the local government's General Plan. All public works projects, development projects, discretionary permits, capital improvement plans and other private and public agency proposals are reviewed for consistency. The public project consistency review process will be conducted in accordance with the Advance Planning Program Manual prepared by EMA. The private project review will be conducted in accordance with the following guidelines:

PRIVATE DEVELOPMENT PROJECTS:

Project consistency/compliance with the PSF Element will be evaluated in the manner below:

1) Flood Control Component

Compliance/Consistency:

- a) Participation in AMR review process, if required.
- b) Standard conditions/mitigations for flood protection and the Flood Plain Zoning Regulations shall be applied.
- c) Participation in flood and drainage facility and financing programs established by the Board of Supervisors.

2) (Solid) Waste Management Component

Compliance/Consistency:

- a) Projects encroaching near an active landfill will be reviewed for compatibility with landfill operations.
- b) Projects will be encouraged to utilize waste recycling and reuse measures which extend the operating life of landfills per existing standard EIR mitigation measures.

3) Water System Component

Compliance/Consistency:

- a) Participation in AMR review process, if required.

- b) Standard conditions on water distribution systems and service commitments from water purveyors.

4) Wastewater System Component

Compliance/Consistency:

- a) Participation in AMR review process, if required.
- b) Standard conditions on wastewater disposal and service commitments from wastewater agencies.

5) Transportation Component

Compliance/Consistency:

- a) Participation in AMR review process, as required.
- b) Participation in assessment/fee programs established by the Board of Supervisors to implement facilities.
- c) Provision of all necessary on-site facilities and responsibility for fair share of off-site facilities as established by Board of Supervisors policy and standard conditions for projects.

6. Community Facilities Component

Compliance/Consistency:

- a) Participation in AMR review process, if required.
- b) Participation in assessment/fee programs established by the Board of Supervisors to implement facilities.
- c) Standard conditions for community facilities (e.g., fire service, CSA annexations) in accordance with Board of Supervisors policy.
- d) In areas with documented future facility deficiencies, General Plan Amendment and/or Zone Change conditions applied to projects to ensure provision of necessary community facilities shall be addressed/incorporated in subsequent project approvals.

c. New or Existing Program: Existing

d. Implementation Schedule: Ongoing

e. Responsible Agencies: Environmental Management Agency

f. Source of Funds: County General Fund

6. Intergovernment Coordination and Public Participation

- a. Action: Intergovernmental coordination and public participation are existing components of the Advance Planning Program and the Development Monitoring Program. Intergovernmental and intra-governmental coordination will continue through increased cooperation and contact with federal, state, regional, countywide, and Orange County agencies which impact or influence Public Services and Facilities Element implementation.
- b. Discussion: This program facilitates both intra- and inter-governmental coordination and citizen participation in order to promote a greater understanding of the County General Plan. Appropriate governmental agencies, organizations and citizens are provided an opportunity to review documents and provide input during the General Plan revision and amendment process. Appropriate agencies are also consulted and involved in many of the implementation programs defined in this document.
- c. New or Existing Program: Existing
- d. Implementation Schedule: Ongoing
- e. Responsible Agencies: CAO and EMA
- f. Source of Funds: County General Fund

7. Development Monitoring Program (DMP)

- a. Action: Continue annual DMP Report Process which incorporates AMR information (see Implementation Program No. 3) and other public facility and fiscal needs monitoring.
- b. Discussion: This program provides an annual report which documents ongoing and projected infrastructure system capacities and demands for various service providers in Orange County. The DMP report also contains fiscal projections for each of the Board governed Special Districts and service agencies. Coupled with small area population and housing projections, the DMP is a tool for use in short-range and long-range facilities planning, budget planning, and in the land use decision making process. The DMP will continue to be used as an early warning system to alert affected bodies to existing and future public service and facility imbalances.
- c. New or Existing Program: Existing
- d. Implementation Schedule: Ongoing
- e. Responsible Agencies: CAO and EMA
- f. Source of Funds: Various sources

8. City/Special District Coordination

- a. Action: Continue and expand cooperative public facility planning and implementation activities with Orange County cities and special districts.
- b. Discussion: Many public facility systems involve several special districts and/or local jurisdictions. The increasing scarcity of fiscal resources and decreasing opportunities for facility siting and implementation support a more active, cooperative role among all public agencies in Orange County towards public service goals. Such efforts include the existing County Water Plan and Flood Control Programs and emerging Countywide public facility planning activities such as the Comprehensive Public Facilities Financing Program.
- c. New or Existing Program: Expand existing activities
- d. Implementation Schedule: Ongoing
- e. Responsible Agencies: EMA and CAO
- f. Source of Funds: County General Fund

CHAPTER FIVE: FLOOD CONTROL SYSTEM COMPONENT

A. Overview

As described in Chapter Two, Flood Control System Section, the Santa Ana River presents a potential flood hazard within the eastern San Bernardino, northeastern Riverside, and central Orange County areas. The three counties and the U.S Army Corps of Engineers have agreed on the Santa Ana River Main Stem Federal Project (including Santiago Creek) to reduce flood damage losses. This plan would provide for a new dam (Seven Oaks) near Redlands, the raising of Prado Dam, and many channel improvements along the entire system. This plan would reduce the potential damage expected from a Standard Project Flood, which is determined from the most severe meteorological and hydrological conditions on record for the region.

The County's local drainage basins are also subject to flooding. The County Flood Control District manages an annual program of channel and drain projects to ensure the drainage capacity needs of urban development in the South County area are met; and, to upgrade existing facilities for more effective flood protection. In addition, the ongoing implementation of flood plain development restrictions (e.g., FP-2 zoning) and watershed improvement measures may increase protection in the more immediate future.

Because flood protection in Orange County is regional and local in nature, this component addresses both overall and specific project concerns through an integrated strategy of goal, objectives and policies.

B. Goal, Objectives and Policies

1. Goal and Objectives

Goal: Provide effective and efficient flood protection throughout Orange County.

Objective 1: To implement the improvements for the Santa Ana River Main Stem Federal Project (including Santiago Creek).

Objective 2: To develop and enhance intergovernmental relations for flood protection programs in Orange County.

Objective 3: To implement flood control facilities which protect both existing and proposed development.

2. Policies

- a. All River Plan: To continue to pursue approval of the All River Plan and the construction of proposed facilities.

- b. System Phasing: To phase improvements to Flood Control District facilities consistent with funding capabilities: (1) implementing them within the time frame of the Santa Ana River Main Stem Federal Project (including Santiago Creek) for equivalent capacities; (2) to provide 100-year flood protection for residences and nonfloodproof structures; and (3) to complete links in the system that have not been provided by new development.
- c. Intergovernmental Coordination: To encourage and enhance coordination between the Tri-County agencies and the State/Federal agencies for optimum flood prevention programs.

C. Implementation Programs

The major factor to reducing Orange County's flood damage potential is the Santa Ana River Main Stem Federal Project (including Santiago Creek). Because the river's watershed encompasses three counties, increased cooperation and coordination of the flood control agencies in the counties is imperative. The ongoing flood control district projects are crucial for efficient water runoff discharge.

1. Intergovernmental Coordination

- a. Action: Continue to develop intergovernmental relations toward achieving flood protection goals and objectives.
- b. Discussion: The Orange County Flood Control District (OCFCD) currently cooperates with various levels of government including federal, state and local agencies. For instance, local projects are analyzed and prioritized by various agencies for budget and implementation purposes requiring effective agency coordination. In addition, the primary regional project, the Santa Ana River Main Stem Federal Project, is dependent upon OCFCD coordination with the U.S. Army Corps of Engineers for project development and implementation. Cooperation among affected counties (Riverside, San Bernardino and Orange Counties) will also be important for project phasing and implementation. Continued and expanded cooperation among agencies will provide a coordinated effort toward achieving flood protection funding, phasing and implementation goals and objectives.
- c. New or Existing Program: Existing
- d. Implementation: Ongoing
- e. Responsible Agency: EMA
- f. Source of Funds: Various funding sources

2. Santa Ana River Main Stem Federal Project (previously the All River Plan)
- a. Action: Expedite to the greatest extent feasible the implementation of the Santa Ana River Main Stem Federal Project as an integral flood control management program.
 - b. Discussion: The Santa Ana River Main Stem Federal Project is a comprehensive flood control program focusing on improvements along the Santa Ana River beginning at its headwaters in San Bernardino County to its ocean mouth in Orange County. The Santa Ana River Main Stem Federal Project was approved by the federal government in 1980 and funding authorized in 1986. Features of the plan include: construction of the Seven Oaks Dam in San Bernardino County, improvement to Prado Dam in Riverside County, and channel improvements to the river and Santiago Creek in Orange County. Construction of the project could begin as early as 1990.
 - c. New or Existing Program: Existing
 - d. Implementation Schedule: Ongoing
 - e. Responsible Agencies:
 - (1) U.S. Army Corps of Engineers
 - (2) Orange County Flood Control District
 - (3) Riverside County Flood Control District
 - (4) San Bernardino County Flood Control District
 - f. Source of Funds: Various funding sources

3. Orange County Flood Control District System

- a. Action: Continue to provide efficient and effective flood control protection for Orange County residents.
- b. Discussion: The Orange County Flood Control District is empowered to construct and maintain flood control works for water conservation and to prevent or minimize loss of life and property caused by flooding. The Environmental Management Agency (EMA) is responsible for implementing the Flood Control District's program which includes the design, construction, operation and maintenance of regional flood control facilities.
- c. New or Existing Program: Existing
- d. Implementation Schedule: Ongoing
- e. Responsible Agencies: (1) Orange County Flood Control District
(2) EMA
- f. Source of Funds: Various funding sources

CHAPTER SIX: WASTE MANAGEMENT COMPONENT

A. Overview

Solid waste disposal has commanded increasing attention in Orange County, primarily because of the rapidly rising volumes of waste to be collected and disposed, and the greater difficulty attached to disposal due to public attitudes associated with the location of landfill sites. If waste management is to be operated efficiently and at a reasonable cost, then disposal sites need to be located near the generating source of waste products, which in this case are the residents and businesses of Orange County. Consequently, the decisions made on locating additional landfill sites and alternative methods of waste management, such as recycling and waste-to-energy projects, must balance community attitudes and optimum service system efficiencies for solid waste.

More than two million people in Orange County are served by four landfills and four transfer stations that receive between 8,000 and 9,000 tons per day (TPD) of solid waste. Three of the four landfills are projected to close by 1995. The remaining landfill site, Prima Deschecha Sanitary Landfill, has a life span beyond the year 2000. Although the planned Bee Canyon landfill site will meet some of the demands currently met by existing landfills, additional sites and resource conservation programs may be necessary to meet Orange County's needs through the year 2000. Thus, the intent of this component is to support the maximum and efficient use of existing and planned sites, and to promote resource conservation policies and programs which defer or eliminate the need for additional sites.

B. Goal, Objectives and Policies

1. Goal and Objectives

Goal: Provide for the systematic collection disposal and reuse of solid wastes in a manner which will protect the environment and ensure the continued management of wastes in Orange County.

Objective 1: To provide for efficient, environmentally sound disposal sites and the initial development of resource recovery programs by 1990.

Objective 2: To protect and maintain the projected operating life of existing solid waste facilities through the coordination of land use and solid waste planning.

2. Policies

a. Land Use Compatibility: To plan solid waste facilities in a manner compatible with surrounding land uses and to review planned land uses adjacent to landfills for their compatibility with landfill operations.

b. County Solid Waste Management Plan: To support and implement the adopted Solid Waste Management Plan to achieve waste management objectives.

- c. Solid Waste Recycling and Reuse: To promote the utilization of waste recycling and reuse measures which extend the operating life of existing solid waste facilities.

C. Implementation Programs

The future of solid waste management in Orange County will involve the efficient use of existing disposal sites and the employment of innovative technologies which create marketable waste by-products and produce energy. By the year 2000, it is intended the County will have established programs which emphasize conservation, recycling, and resource recovery. Before the year 2000, some of the County's landfills will close and create a need for new or expanded facilities. The following programs respond to these diverse waste system issues and attempt to achieve solid waste system objectives.

1. County Solid Waste Management Plan

- a. Action: Continue to implement the County Solid Waste Management Plan (CoSWMP).
- b. Discussion: All counties are required to develop and implement CoSWMPs in their respective jurisdictions. These plans assess current and future solid waste management issues faced by the County. The plan also contains solutions and a course of action to respond to identified problem areas.

The revised CoSWMP for Orange County will be submitted for adoption by the Board of Supervisors in November 1984 and approval by the State Waste Management Board in early 1985. The adopted plan will be implemented primarily through the County's GSA/Waste Management Program.

- c. New or Existing Program: Existing
- d. Implementation Schedule: Ongoing
- e. Responsible Agency: GSA/Waste Management Program
- f. Source of Funds: (1) Waste Management Enterprise Fund
(2) County General Fund

2. Coordination of Land Use/Solid Waste Planning

- a. Action: Continue to designate future landfill sites as part of the overall land use planning process and protect existing facilities from adjacent incompatible land uses as required by state law.
- b. Discussion: The interface between existing and proposed landfills and surrounding land uses has emerged as a key concern in Orange County. Comprehensive land use planning is necessary to support the development of additional sites and to avoid premature closing of an operating landfill. This program responds to these two issues and state law requirement by continuing to integrate solid waste

management into the land use planning process. The Community Profiles, Component III of the Advance Planning Program, will be utilized in the solid waste facility/land use compatibility process.

- c. New or Existing Program: Existing Program
- d. Implementation Schedule: Ongoing
- e. Responsible Agencies: (1) EMA
(2) GSA/Waste Management Program
- f. Source of Funds: (1) County General Fund
(2) Waste Management Enterprise Fund

3. Resource Conservation Programs

- a. Action: Continue and expand resource recovery programs as identified in the adopted Solid Waste Management Plan for Orange County.
- b. Discussion: The current era of limited resources has directed public attention towards resource conservation and resource recovery. These activities can help defer and avoid the need for additional solid waste facilities in Orange County, and provide energy savings and environmental benefits. Existing and planned activities include: public information efforts, recycling and reuse programs and waste-to-energy projects. Projects which utilize waste-to-energy techniques will also be assessed as part of the County Energy Resources Management Plan work effort. As a whole, these largely voluntary programs should help address some of Orange County's solid waste facility needs through the year 2000.
- c. New or Existing: Existing; contained in adopted County Solid Waste Management Plan and Resources Element.
- d. Implementation Schedule: Ongoing
- e. Responsible Agencies: (1) GSA/Waste Management Program
(2) EMA (Waste-to-Energy Facility Planning)
- f. Source of Funds: Waste Management Enterprise Fund

CHAPTER SEVEN: WATER SYSTEM COMPONENT

A. Overview

As described in Chapter Two, Water System Section, water is delivered to Orange County users through a system of various state and regional water facilities. Once delivered to county wholesale water agencies, imported water and local groundwater are conveyed to users through regional transmission facilities and the distribution systems of local water agencies. Reservoirs, pumping stations, and transmission mains are key components of the County's extensive water conveyance system. While some of these facilities are provided by new development as a part of subdivision improvements, regional transmission and storage facilities require district- or county-level planning and funding. The continued development of local and regional water facilities within Orange County, and adequate funding for their operation and maintenance, are necessary to meet the County's future growth. In light of this fact, ensuring adequate capacity is the key goal of this component.

Although the local water delivery system is important, Orange County remains dependent on the Metropolitan Water District (MWD) for 100 percent of its imported water, which is 70 percent of the County's total supply. It is anticipated that the County's supplies will continue to be tied to those of MWD through the year 2000. Because of the County's dependence on MWD's imported water supplies, the physical capacity of the state and regional delivery systems serving MWD is a key factor in meeting Orange County's water supply needs.

In response to the County's reliance on state and regional water delivery systems, this component provides a strategy addressing both countywide and state/regional concerns.

B. Goal, Objectives, and Policies

1. Goal and Objectives

Goal: Encourage the planning and development of a water conveyance and distribution system to meet the County's future demand.

Objective 1: To achieve desired water system service levels through the coordination of land use and water system planning.

Objective 2: To implement state, regional and local facility plans for water delivery to Orange County.

Objective 3: To increase storage and delivery capacity for water supplies in Orange County.

2. Policies

- a. System Capacity and Phasing: To ensure the adequacy of water system capacity and phasing, in consultation with the service providing

agency(ies), in order to serve existing and future development as defined by the General Plan.

- b. Water Delivery System: To support water facility planning and development efforts for Orange County water supplies conducted by local and regional water agencies.
- c. Intergovernmental Coordination: To actively encourage opportunities for increased coordination between the County and the water agencies through cooperative water facility planning and implementation efforts.

C. Implementation Programs

Because the County must rely heavily on imported water supplies, the implementation programs within this section are directed towards efficient use of existing local water facilities and support of the necessary physical improvements to the state, regional and local water system necessary for meeting Orange County's existing and future demands. In addition, the multitude of water purveyors involved in Orange County's water system requires increased intergovernmental coordination and cooperation be a key implementation program.

1. Intergovernmental Coordination

- a. Action: Continue and expand existing intergovernmental activities toward achieving County water system goals and objectives.
- b. Discussion: Increased coordination on the part of the County and local/regional water agencies serves to ensure effective communication and cooperation on water system capacity issues. On July 15, 1983, the Board of Supervisor authorized EMA to establish regular liaison with the water agencies of Orange County towards achieving this end. Potential cooperative efforts include multi-purpose flood control/water storage capital projects and coordinated facility financing programs.

In addition to the County/Water Agency liaison program, ongoing coordination with the federal and state government on water facility planning and implementation programs is essential. This is particularly important at the state level, since physical improvements to water conveyance and storage facilities in northern and central California (e.g., Delta Transfer facilities) are critical to the County's water system. Such activities as legislative support and intergovernmental planning and management efforts can thus increase the dependability and adequacy of the County's physical delivery system.

- c. New or Existing Program: Existing
- d. Implementation Schedule: Ongoing

e. Responsible Agency: EMA

f. Source of Funds: County General Fund

2. County Water Plan

- a. Action: Continue County Water Plan work effort and related activities.
- b. Discussion: The County Water Plan is a three-phase study the objective of which is to ensure to the maximum extent possible an adequate, dependable water supply for all reasonable uses. Included within the scope of this study is an ongoing assessment of regional and local water facility needs.

The Phase I County Water Plan outlined the County's water supply future under various supply scenarios. The Phase II report examined immediate and near-term water supply concerns and presented measures to address these concerns. The focus of the third phase is a study of issues of long-term concern regarding water supply, including water system capacity. Phase III will also include the near-term water supply analysis and additional updates necessary to keep Phase I and II current, and to advise the Board of Supervisors of matters of immediate concern. As part of this effort, regional and local water delivery system issues will be addressed, and appropriate County programs and actions will be effectuated.

- c. New or Existing Program: Existing
- d. Implementation Schedule: Ongoing
- e. Responsible Agencies: (1) Water Agencies
(2) EMA and CAO
- f. Source of Funds: (1) County General Fund
(2) Water Agencies

3. Growth Management Program - Water System

- a. Action: Continue existing activities to require District concurrence with development proposals and expand annual review of developer-purveyor cooperative agreements and plans.
- b. Discussion: Presently, the County requires will-serve letters from water purveyors prior to approval or extension of approval of tentative tract maps. This provides assurance that the District is capable of coordinating delivery through construction of necessary facilities. However, these letters are usually conditional upon funding or implementation actions of the project proponent. Project implementation phasing is dependent upon the status of facility planning and ongoing negotiations between the project proponents and the service agency.

The County of Orange General Plan, Land Use Element, provides for the phasing of development consistent with the adequacy of public services and facilities (Policy 2: Phase Development). In the case of water delivery facilities, the absolute necessity of water service to development will ensure adequate incremental water capacity. However, the County should be apprised of the status of ongoing planning, agreements, and delivery phasing as it ultimately may determine the phasing of development and the need for other support services.

Water demand and facilities capacity information is requested with the submittal of Annual Monitoring Reports (AMRs) prepared by planned community development proponents. (See Land Use Element Implementation Programs.) This information is compared to facilities plans prepared by service agencies to monitor public service delivery and to help update small area demographic projections. Where discrepancies are found between proposed development activity portrayed in AMRs and service delivery planning documents, further information will be requested in subsequent AMRs or, if necessary, in development processing documentation.

- c. New or Existing Program: Existing
- d. Implementation Schedule: Ongoing
- e. Responsible Agencies: CAO and EMA
- f. Source of Funds: County General Fund

CHAPTER EIGHT: WASTEWATER SYSTEM COMPONENT

A. Overview

This County's past ability to grow rapidly was facilitated to a certain extent by its wastewater treatment capabilities and the ability of wastewater agencies to respond to growth demands. Key issues for the future of wastewater management in Orange County will include the emergence of small-scale package treatment alternative technologies and facility phasing. In addition, there will be a recognition of the interrelationship of local service providers and countywide wastewater facility plans and programs.

In response to the above issues, this component describes a goal and policies which consider: (1) countywide wastewater needs, (2) intergovernmental service arrangements, and (3) facility/development phasing objectives. The component's implementation programs serve to bridge the wastewater system goals to County actions.

B. Goal, Objectives, and Policies

1. Goal and Objectives

Goal: Support the planning and development of a wastewater system to meet both the County's demand and attain water quality goals.

Objective: To maintain wastewater system service levels through the coordination of land use and wastewater system planning.

Objective: To implement wastewater agency facility and water quality plans for Orange County.

2. Policies

- a. Water Quality: To protect quality in both delivery systems and groundwater basins through effective wastewater system management.
- b. Intergovernmental Coordination: To actively encourage opportunities for increased coordination between the County and wastewater agencies through cooperative wastewater studies, planning and facility implementation efforts.
- c. System Capacity and Phasing: To ensure the adequacy of wastewater system capacity and phasing in consultation with the service providing agency(ies), in order to serve existing and future development as defined by the General Plan.

C. Implementation Programs

The Wastewater System Component provides programs for wastewater treatment and collection activities in order to meet both existing and projected needs. These programs provide a framework for implementing wastewater system policies and recognizing ongoing activities.

1. Intergovernmental Coordination

- a. Action: Continue and expand existing intergovernmental activities toward achieving County wastewater system goals and objectives.
- b. Discussion: Increased coordination on the part of the County and wastewater agencies serves to ensure effective communication and cooperation on wastewater issues.
- c. New or Existing Program: Existing
- d. Implementation Schedule: Ongoing
- e. Responsible Agency: EMA
- f. Source of Funds: County General Fund

2. County Wastewater Study

- a. Action: Develop a County Wastewater Study in cooperation with local wastewater agencies.
- b. Discussion: The authorization for the County Water Plan work effort included a wastewater component. While water needs have taken precedent to date, wastewater issues are also recognized as increasingly important. The intent of this study would be to ensure, to the extent possible, adequate and dependable wastewater capacities for planned land uses. Included within the scope of this study would be an assessment of regional and local wastewater facility needs and capabilities, complementary to the ongoing DMP analysis of system service capacities.
- c. New or Existing Program: New program, expand existing activities
- d. Implementation Schedule: Work Program, January, 1985
- e. Responsible Agencies: (1) EMA and CAO
(2) Wastewater Agencies
- f. Source of Funds: County General Fund

CHAPTER NINE: TRANSPORTATION SYSTEM COMPONENT

A. Overview

Orange County's transportation facilities have long been a vital component necessary for the economic well-being of the region. The adequacy and accessibility of transportation facilities is a primary consideration for determining the probable extent and amount of growth in Orange County. Besides transporting goods and people, these facilities influence the development pattern within the county by supporting housing, employment, recreation and commercial activities.

The development of the highway system in Orange County has provided superior mobility and convenience to the majority of the County's residents. The highway system has supported the dominance of the automobile as a mode of travel within the region for the present and the foreseeable future. The highway system also serves as the guideway for the County's mass transit system (i.e., bus) and links the rail and air facilities within the county. It is critical that the highway system be able to serve both its primary mission of automobile travel and to support the other transportation facility systems.

The analysis in Chapter Two, Transportation System, underscores the fact that serious deficiencies exist in Orange County's transportation system. The state freeway system and the arterial highways system do not have sufficient capacity, due to inadequate capital investments, to accommodate the anticipated heavy demand caused by projected population and employment growth. Transit as an alternative is not expected to alter significantly the present use of the automobile as the primary mode of travel. The capacity shortfalls associated with air facilities will also continue, with much of Orange County's air travel demands being met outside the County.

The traditional solution to a transportation problem has been to build bigger and better transportation facilities. This solution, however, can no longer be implemented on a wide scale. The costs of transportation facility construction and maintenance are increasing while revenues have become very limited. The County's facilities maintenance needs are also rising due to deferral of preventive maintenance due to fiscal constraints and the need for capital improvements.

In response to the transportation system deficiencies mentioned above, facility improvements have been identified and proposed in various transportation plans to improve the level of travel service in Orange County. These plan improvements will have no impact on the County's transportation system unless they are coupled with financing and implementation programs which ensure their timely funding and construction. In the period prior to the provision of necessary improvements, interim measures will be necessary to efficiently utilize the County's existing transportation system.

This component provides an integrated strategy for implementing the necessary transportation system improvements in the County, and identifies programs to reduce the demands on the transportation system until improvements can be made.

Much cooperation among the County, public agencies and private firms is required to ensure that all of the pieces of the County's transportation system fit together and function efficiently. Consequently, policies and programs for increased intergovernmental and public/private cooperation are also included in this component.

B. Goals, Objectives and Policies

1. Goals and Objectives

Goal 1: Develop an integrated transportation system consisting of a blend of transportation modes capable of meeting the need to move people and goods by private and public means with maximum efficiency, convenience, economy, safety and comfort; and a system that is consistent with other goals and values of the county and the region.

Objective 1.1: To achieve a safe, balanced and coordinated transportation system which allows for efficient, comfortable and convenient travel through and within the county and the region, by a combination of transportation modes.

Objective 1.2: To maintain Level of Service "C" on links and "D" at intersections throughout the County arterial highway system.

Goal 2: Encourage the funding and development of a transportation system to meet the county's future travel demand.

Objective 2: To achieve target transportation system service levels through the land development process, public and private funding programs and transportation system management.

2. Policies

- a. Phasing and Financing: To implement the arterial highway system in a manner that supports the implementation of the overall land use development policies and the transportation needs of County residents, and is consistent with the funding capabilities of the County and its land use policies.
- b. System Programming and Funding: To make maximum use of available funding sources, including federal, state and local as well as support increases in such sources, and require private participation in assessment/fee and other programs established by the Board of Supervisors, in order to implement necessary facilities.
- c. Transportation System Management: To develop, implement, and support transportation system management techniques and programs, and other capital improvements to the arterial highway system which would provide additional traffic capacity, efficiency and safety, promote maximum utilization of the existing system and reduce peak period traffic congestion.

- d. Land Use Coordination: To provide an arterial highway system which is consistent and coordinated with the existing and adopted land use policies of the County and the cities.

C. Implementation Programs

The achievement of transportation system goals will be extremely difficult as costs continue to rise and revenues remain limited. The implementation programs discussed below focus on the achievement of goals through increased coordination and facility management and phasing efforts.

1. Intergovernmental Coordination

- a. Action: Continue and expand intergovernmental efforts towards achieving transportation system goals.
- b. Discussion: The County currently cooperates with various levels of government including the federal, state, regional and countywide agencies mentioned in Chapter Two. In addition, the County interacts with the cities and local agencies in order to assure consistency between County unincorporated and city roads and highways. Continued and expanded cooperation will be essential for a coordinated effort in achieving transportation goals. Particularly the coordination of funding, needs assessment, development phasing and facilities management opportunities. Interaction will be necessary to discuss issues such as standard levels of service, fee programs and standard levels of maintenance.

In addition, future growth will make intra-county relations necessary as population and employment growth within Orange County continues and population and housing in surrounding counties increases.

- c. Existing or New Program: Existing
- d. Implementation Schedule: Ongoing
- e. Responsible Agencies: (1) EMA
(2) Affected cities
(3) Orange County Transportation Commission (OCTC)
- f. Source of Funds: (1) Orange County Road Fund
(2) Various funding sources

2. Land Use Development Review

- a. Action: Continue to review all land use proposals prior to their consideration by approving authority, in order to evaluate the impact of the project on the arterial highway system and to assure that adequate transportation facilities will be available or programmed for construction with determined funding sources.

- b. Discussion: The Land Use Element (LUE) of the General Plan sets forth phased development implementation policy to ensure that development coincides with the adequacy of public services and facilities. The Growth Management Program implements the phased development and land use/transportation integration policies of the LUE through a requirement that developers of major projects submit annual reports projecting deficiencies in infrastructure and stating mitigation measures. All major development proposals will be reviewed on the basis of the infrastructure analysis contained in their annual monitoring reports. Projects which would create infrastructure imbalances or deteriorate service capabilities will be recommended for modification or deferral until further information is presented to indicate that imbalances have or will be corrected.
- c. Existing or New Program: Existing
- d. Implementation Schedule: Ongoing
- e. Responsible Agencies: EMA and CAO
- f. Source of Funds: County General Fund (Developer Processing Fees)

3. Financing and Phasing Programs

- a. Action: Continue to maximize use of available federal, state, local and private funding sources. Support efforts to increase existing funding sources (e.g., fuel tax) to reasonable levels and continue to formulate new funding mechanisms to implement necessary transportation facilities.
- b. Discussion: The County of Orange is responsible for the construction and maintenance of all public streets and highways in the unincorporated area except for designated state routes. The County's Road Program provides the funding mechanism through which public streets and highways can be planned, designed, constructed and maintained; it provides for right-of-way acquisition, major bridge design and construction and financial assistance to cities through the Arterial Highway Financing Program (AHFP).

Of the various sources supporting the Road Fund, six provide 98 percent of total revenues. They are Highway Users taxes, Vehicle Code fines, interest on deposited funds, participation by other agencies and private interests, Planning and Engineering Services, and other revenue including Road Fee Program revenues.

Reduced gasoline consumption associated with the price increases of fuel and increased fuel efficiency of motor vehicles, has nibbled away at the traditional source of roadway funds - the fuel tax. Also, Orange County has in the past received less

than its fair share of the state highway account because of the dominance of transportation needs in Los Angeles County and the emphasis of federal funding programs on the interstate system, which is minimal in Orange County. Presently, neither the state highway account (even under better than fair share distribution since the creation of a separate Orange County CalTrans district), nor the Orange County Road Fund have sufficient resources to build all planned freeways and local arterial highways. Additional resources will be necessary in order to phase transportation facility improvements consistent with planned and projected development. The County has initiated the development of several fee programs for specific roads as one alternative to help narrow the gap between projected costs and revenues.

Road Fee programs are developed based on the assumption that those who will benefit from the road should pay their fair share of the costs of the road construction. Therefore, areas of benefit (AOB) are designated for each program. Costs are allocated to different parts of the AOB based on traffic generated or attracted by various land uses. In this manner, as equitable a distribution of costs as possible is accomplished. In addition, development and transportation facility phasing can be balanced.

- c. Existing or New Program: Existing
- d. Implementation Schedule: Ongoing
- e. Responsible Agency: (1) EMA
(2) Affected cities
(3) OCTC
- f. Source of Funds: Various funding sources

4. Transportation System Management

- a. Action: Expand transportation system management efforts in the County.
- b. Discussion: The County's Transportation System Management (TSM) efforts are appropriately concentrated on making the best use of the existing transportation system with only minor modifications. Construction activities under TSM are limited to enhancing what is already in place such as spot-widening or minor completion projects.

The County has spent a major part of its TSM effort on traffic signal coordination. The County has a master signal controller which can monitor and modify timing on most County-owned signals to improve the operation of the roadways. Coordinated signals save energy, reduce pollution and minimize delay to drivers. Coordination effectively increases roadway capacity by as much as 30 percent. In Orange County the improvement is 5 to 10

percent. The County also engages in arterial highway restriping where this can help add capacity. Restriping includes creating new lanes and improving intersection channelization.

In general, TSM opportunities available to the County include: inexpensive means of improving the system's person-carrying capacity through restriping or channelizing, improving signal coordination, and encouraging the use of high occupancy vehicles (carpooling, mass transit, etc.).

- c. Existing or New Program: Existing
- d. Implementation Schedule: Upon adoption of this Element
- e. Responsible Agencies:
 - (1) EMA
 - (2) OCTC
 - (3) County Airport Division
 - (4) CalTrans
 - (5) Affected Cities
- f. Source of Funds: Various funding sources

CHAPTER TEN: COMMUNITY FACILITIES COMPONENT

I. Orange County Fire Department

A. Overview

As described in Chapter Two, Community Facilities Section, fire protection and paramedic services are provided to the unincorporated County and contracting cities by the Orange County Fire Department (OCFD). The OCFD also has mutual aid agreements with cities to cover the unincorporated County islands in order to streamline fire operation and reduce costs. The State Department of Forestry contracts for service with the OCFD for the suppression of wildland fires in the Cleveland National Forest.

Fire protection is one of the more critical public safety services. This service has been relying on Special District Augmentation Funds to supplement its revenue requirements due to the reduction of property taxes caused by the passage of Proposition 13 in 1978. Meanwhile, major planned communities have been approved in the developing south County where new stations or permanent fire stations will be required to provide adequate services.

In view of the planning and funding needs, this component provides strategies addressing both overall Fire Department and project specific concerns.

B. Goals, Objectives and Policies

1. Goals and Objectives

Goal 1: Provide a safe living environment ensuring adequate fire protection facilities and resources to prevent and minimize the loss of life and property from structural and wildland fire damages.

Goal 2: To provide an adequate level of paramedic service for emergency medical aid in order to minimize trauma of injury or illness to patients.

Objective 1: To achieve desired level of fire protection and paramedic service through coordinated land use and facility planning.

Objective 2: To develop comprehensive fire and paramedic facility planning to include phased capital improvements consistent with the County General Plan.

Objective 3: To establish implementation programs including alternative funding mechanisms to assure the availability of the phased facility requirements.

2. Policies:

- a. Facility Siting: Fire/paramedic facilities shall be sited in central locations so as to assure efficient fire rescue and paramedic response for the service area. General criteria for site selection shall include:
 - 1) Call response time: for 80 percent of the service area, first fire engine to reach the emergency scene within 5 minutes and paramedic to reach the scene within 10 minutes.
 - 2) Land use compatibility: stations shall be located in commercial or industrial, or open space zones in order to avoid the disturbance to residential areas.
 - 3) Street access: stations shall be located on arterial highways with controlled traffic signalization.
- b. Phased Development: Require phased development whereby land use proposals shall display the ability to provide adequate fire and paramedic services prior to project development. The service provision shall include station site acquisition, construction, equipment and station staffing. The level of service shall be established in accordance with the criteria identified in the above policy.
- c. Site Design Criteria: Require all land use proposals to implement adequate site design so as to maximize fire protection and prevention in order to minimize potential damages. The site design criteria shall be established to reflect the levels of protection needed for projects in various fire hazard areas. Such criteria shall include consideration as to: structure type and density, emergency fire flow and fire hydrant distribution, street pattern and emergency fire access, fuel modification programs, automatic residential sprinkler systems, and other requirements as determined by the Fire Warden.

In accordance with the Insurance Services Office (ISO) suggested standards, ultimate fire protection rating shall be maintained by General Plan land use categories as follows:

(1) ISO 4 for all urban developments including Residential (IC and IB), Commercial (2A and 2B), Employment (3.0) and Public (4.0); and (2) ISO 7 for Rural Residential (IA).

- d. Service System Operations: Orange County Fire Department shall continue to strengthen mutual aid agreements with State and other city fire departments to assure efficient service delivery. Feasible consolidation of service areas shall be encouraged to eliminate duplication and overlapping of services.

C. Implementation Programs

1. Coordinated Land Use Development Review

Action: CAO/UMAC, in coordination with the Orange County Fire Department and EMA, shall review all land use proposals: General Plan Amendments, Zone Changes, Area Plans, Site Plans, and Subdivisions prior to their consideration, to assure that adequate fire and paramedic facilities will be available or programmed for construction with determined funding sources.

Discussion: Currently, the adequacy of fire and paramedic service for land use proposals is determined through the Environmental Impact Report (EIR), Fiscal Impact Report (FIR) and Annual Monitoring Report (AMR) review processes. At the overall service level, the review is conducted by the County Fire Department and CAO/UMAC through the EIR review process which is coordinated by the County EMA. Based on EIR findings, mitigation measures are proposed to alleviate the identified deficiencies.

Concurrent with the EIR review process, major land use proposals may also be required to prepare and submit a FIR under the guidance of CAO/UMAC. The primary purpose of the FIR is to forecast the direct cost/revenue balances resulting from the proposal to facilitate the decision making process. During the preparation of the report, the County Fire Department participates in the case review meetings with CAO/UMAC and project proponent to identify specifically the timing, site, equipment and station staffing requirements to serve the proposed project. Based on these analyses, CAO/UMAC develops appropriate recommendations which are submitted to the decision making bodies, prior to project approval, to assure the timely implementation of the needed facilities.

The Land Use Element of the General Plan sets forth a phased development implementation policy to ensure that development coincides with the adequacy of public services and facilities. The implementation of the policy is strengthened by the enactment of a growth management program i.e., the Annual Monitoring Reports (AMRs) which are required to be prepared by development proponents of all Planned Communities. All major development proposals are reviewed on the basis of the infrastructure analysis contained in their Annual Monitoring Reports and recommended modifications or additional actions/requirements are offered as part of the Development Monitoring Program Report's annual update. The AMRs also provide a reference document for review of subsequent project approvals including subdivisions, area plans, site plans and use permits. Where discrepancies are found between proposed development activity portrayed in AMRs and service delivery planning documents, further information is requested in subsequent AMRs or, if necessary, in related development processing documentation.

New or Existing Program: Existing

Implementation Schedule: Ongoing

Responsible Agencies: (1) CAO
(2) EMA
(3) County Fire Department

Source of Funds: (1) County General Fund
(2) Structural Fire Fund

2. Facility Fee Program

Action: (a) Require developer participation in funding new fire stations in areas designated by the Board of Supervisors. (b) Implement a facility fee program as a method of developer participation in funding new fire stations.

Discussion: A facility fee program was proposed to assist in offsetting projected revenue shortfalls, by providing needed future capital improvements to accommodate growth. Most major south Orange County Planned Communities have been required to participate in the provision or extension of community facilities as conditions of Planned Community development approval.

A preliminary fee program report for distributing fire station and library facilities costs was submitted to the Board of Supervisors during 1983. Currently, the preliminary fee program report is being revised by CAO/UMAC to address comments received from the public, developers, and other County departments. The foregoing issues will be discussed further with affected agencies and landowners prior to submittal of the fee ordinance for adoption.

The revision will also focus on devising a fee collection procedure which identifies specific responsibilities for each of the participating agencies. At present, the development of the fee program and preparation and execution of interim agreements is being administered by CAO/UMAC staff. Tentative procedures have been prepared and are being reviewed which potentially place fee collection within EMA. As part of the adopted 1983-84 DMP recommendations, EMA has been directed to establish policies and procedures to administer the collection of development fees for fire station facilities. Also, CAO is directed to revise the draft community facilities fee program in recognition of EMA policies and procedures and submit the program to the Board of Supervisors for adoption.

New or Existing Program: Existing

Implementation Schedule: Ongoing

Responsible Agencies: CAO and EMA

Source of Funds: County General Fund

3. Site Design Review

Action: The Orange County Fire Department shall review all land use proposals including subdivisions, site plans, and use permits for adequate site design and implementation.

Discussion: As a member of the Subdivision Committee, the Orange County Fire Department reviews and imposes approval conditions on land use applications which are near implementation to assure that adequate site design is incorporated into the proposal in order to achieve maximum fire prevention and minimize extent of loss associated with fire incidence.

Developers are required to fulfill the conditions (by meeting the approval of County Fire Chief) prior to or concurrent with the issuance of various permits. These conditions usually involve one or more of the following: water system plan, water supply, fuel modification plan and program, emergency fire access and automatic fire distinguishing system. In private communities, adequate design of the controlled accessway is also required in order to allow entry of emergency fire equipment.

The importance of site design for fire retardation and prevention increases as more development is proposed in areas of high fire hazard in the foothills fire hazard areas are depicted in the Safety Element which provides goals and policies to guide land use development in such areas. Additional design standards relating to the use of fire retardant construction materials should be developed to reduce fire incidence and fire suppression costs.

New or Existing Program: Existing

Implementation Schedule: Ongoing

Responsible Agencies: County Fire Department

Source of Funds: Structural Fire Fund

4. Comprehensive Fire Master Plan

Action: Develop and update as needed a Comprehensive Fire Master Plan to address short-range and long-range capital improvements and operation requirements.

Discussion: Future fire stations are projected in the Master Plan of County Facilities (MPCF), coordinated by the CAO/PPD. For the short-range needs, generally no more than five years, specific information regarding construction schedule, potential sites, and associated costs for each station are included for both temporary and permanent stations. For long-range projections (year 2000), the report includes general locations and estimated costs of the future stations. While utilizing the Development Monitoring Program (DMP) Report as a primary data base and reference tool, the MPCF's main focus is on prioritizing short-range capital improvement requirements for the full range of County facilities.

DMP Report is updated annually and provides comprehensive and summary projections of cost and revenue balances for the County General Fund and all major components of the infrastructure. The cost information for the County Fire department includes capital improvement and equipment, site acquisition, and operation and maintenance in cumulative five year totals extending to year 2000. Although projected stations and equipment are identified in the reports, the associated cost data are displayed in aggregate totals for all stations for each five year period. The 1983-84 DMP report indicates a cumulative projected revenue shortfall for the Fire Department operations. In view of the projected revenue shortfalls, a Comprehensive Fire Master Plan should be developed and maintained in order to assure that adequate service will be provided in time for both existing and future residents. Such a Master Plan should be updated regularly by the County Fire Department and CAO based on DMP and MPCF. The Master Plan should identify long-range and short-range service operation needs of facilities and anticipated funding sources.

To facilitate short-range implementation, a five-year Capital Improvement Program should be included to indicate the amount, timing of availability and means of funding of all new capital improvements as well as estimates of operating costs. The Master Plan would be reviewed and approved by the Board of Supervisors for General Plan consistency and regional needs allocations.

New or Existing Program: Expand existing program

Implementation Schedule: Pending adoption of PSF Element

Responsible Agencies: (1) County Fire Department
(2) CAO
(3) EMA

Source of Funds: (1) Structural Fire Fund
(2) County General Fund

II. Library

A. Overview

As described in Chapter Two, Community Facilities Section, public library service is provided for the unincorporated County and contracting cities by the Orange County Public Library. The Orange County Public Library, as a member of the Santiago Library System, is able to provide inter-library loan service to library patrons with Orange County's six municipal libraries and three independent library districts.

Since the passage of Proposition 13 in 1978, the Orange County Public Library has been relying on Special District Augmentation Funds to supplement revenue requirements due to the reduction of property taxes. Meanwhile, major planned communities have been approved in developing south Orange County where new branch libraries will be required to provide adequate services.

In view of the planning and funding needs, this component provides strategies addressing both overall County Public Library and project specific concerns.

B. Goal, Objectives and Policies

1. Goal and Objectives

Goal: Assure that an adequate level of library service is provided within the service area of the Orange County Public Library.

Objective 1: To achieve desired level of public library service through coordinated land use and facility planning.

Objective 2: To develop comprehensive public library facility planning to include phased capital improvements consistent with County General Plan.

Objective 3: To establish implementation programs including alternative funding mechanisms to assure the availability of the phased facility requirements.

2. Policies

a. Facility Siting: Branch libraries shall be sited in central locations of the community to be served. Site selection criteria shall consider:

- 1) A service standard of .2 square foot of library space per capita.
- 2) Easy access, preferably on main thoroughfare.

- 3) Adequate lot size to accommodate, at minimum, an average branch library size of 10,000 square feet, and provisions for parking.
 - 4) Located in or near a public school, local park, community center, or neighborhood shopping area.
 - 5) Located within a three mile radius of the community served.
- b. Phased Development: Require phased development whereby land use proposals shall display the availability of or the ability to attain adequate public library service prior to project development. The service provision shall include library site, construction, collection and furniture.
 - c. Inter-system Cooperation: Orange County Public Library shall continue to participate in the Santiago Library System to enable inter-library loan implementation among member libraries.

C. Implementation Programs

Existing and proposed implementation programs are summarized in this section. These programs are relevant to both library service and fire protection. Detailed discussion for each program is included in the Fire section of this chapter.

1. Coordinated Land Use Development Review

Action: CAO/UMAC, in coordination with the Orange County Public Library and EMA, shall review all land use proposals prior to project approvals to assure that adequate public library facilities are available or programmed for construction with identified funding commitments.

Discussion: Currently the adequacy of the public library service for land use proposals is determined through the EIR, FIR and AMR review processes. Based on the analysis of these reports, mitigation measures are recommended to the Board of Supervisors in order to assure that balanced land use and infrastructure policy is achieved.

New or Existing Program: Existing

Implementation Schedule: Ongoing

Responsible Agencies: (1) CAO
(2) Orange County Public Library

Source of Funds: (1) County General Fund
(2) Public Library General Fund

2. Facility Fee Program

Action: (a) Require developer participation in funding new branch libraries in areas designated by the Board of Supervisors.
(b) Implement a facility fee program as a method of developer participation in funding new branch libraries.

Discussion: The facility fee program was proposed to augment the projected revenue shortfalls for providing needed future libraries to accommodate growth. Most major south Orange County Planned Communities have been required to participate in the provision of branch libraries as conditions of Planned Community development approval. CAO/UMAC staff is now in the process of finalizing the preliminary facility fee program. The final proposal will include a fee schedule incorporating participating developments and a fee collection procedure with specific designated agency responsibilities. Said fee program is scheduled to be completed by CAO/UMAC and submitted to the Board of Supervisors for approval and implementation.

New or Existing Program: Existing

Implementation Schedule: Ongoing

Responsible Agencies: CAO and EMA

Source of Funds: County General Fund

3. Comprehensive Public Library Master Plan

Action: Develop and update as needed a Comprehensive Library Master Plan to address short-range capital improvements and operation requirements.

Discussion: Short-range and long-range (year 2000) public library needs are identified in the Master Plan of County Facilities (MPCF) and the Development Monitoring Program Report (DMP). The 1983-84 DMP report also indicates a cumulative projected revenue shortfall for the County Public Library operations.

In view of the projected revenue shortfalls, a Comprehensive Library Master Plan should be developed and maintained in order to assure that adequate service will be provided in a timely manner for both existing and future residents. The Library Master Plan should be updated regularly by the County Public Library staff with assistance from the CAO based on DMP and MPCF. The Library Master Plan should identify long-range and short-range service operation needs of facilities and anticipated funding sources.

To facilitate short-range implementation, a five-year Capital Improvement Program should be included to indicate the amount, timing, availability and means of funding of all new capital improvements as well as estimates of operating costs. The Master Plan would be reviewed and approved by the Board of Supervisors for General Plan consistency and regional needs allocations.

New or Existing Program: Expand existing program

Implementation Schedule: Expand ongoing efforts

Responsible Agencies: (1) GSA Library Services
(2) CAO
(3) EMA

Source of Funds: (1) Orange County Library
(2) County General Funds

III. Sheriff Patrol

A. Overview

As described in Chapter Two, Community Facilities Section, Sheriff patrol for the unincorporated County and contracting cities is provided by the Orange County Sheriff-Coroner Department. The County Sheriff-Coroner also has mutual aid agreements with cities to respond to calls in the unincorporated County islands.

The Sheriff patrol service is funded by the County General Fund. Since the passage of Proposition 13 in 1978, County General Fund revenues have been affected significantly by the one percent basic levy limitation. Meanwhile, major planned communities have been approved in the developing south County where additional patrol units and a new permanent Sheriff substation are projected to be required to maintain service levels.

In view of the service planning and funding needs, this section provides strategies addressing the overall Sheriff Department and project specific concerns.

B. Goal, Objective and Policies

1. Goal and Objectives

Goal: Assure that adequate Sheriff patrol service is provided to ensure a safe living and working environment.

Objective: To maintain adequate levels of Sheriff patrol services through coordinated land use and facility planning effort.

2. Policies

a. Land Use Review: To continue to coordinate land use proposal reviews with the County Sheriff-Coroner Department to assure that Sheriff patrol service shall be adequately addressed.

b. Service Delivery: To maintain mutual aid agreements with incorporated cities to assure efficient service delivery for the County islands.

C. Implementation Program

Existing implementation programs are summarized in this section. These programs are relevant to both Sheriff patrol and fire protection. Detailed discussion of the programs is included in the Fire Section of this chapter.

1. Coordinated Land Use Development Review

Action: CAO/UMAC, in coordination with the Orange County Sheriff-Coroner Department and EMA, shall review all major land use proposals prior to project approvals to ensure that adequate Sheriff patrol is available and/or can be extended.

Discussion: Currently the adequacy of the Sheriff patrol service for land use proposals is determined through the Environmental Impact Report (EIR), Fiscal Impact Report (FIR), and Annual Monitoring Report (AMR) review processes. Based on the analyses of these reports, mitigation measures may be recommended to the Board of Supervisors in order to assure that balanced land use and infrastructure/service policy is maintained.

New or Existing Program: Existing

Implementation Schedule: Ongoing

Responsible Agencies: (1) CAO
(2) EMA
(3) Orange County Sheriff-Coroner
Department

2. Major Facility Planning

Action: The County Sheriff-Coroner Department, in coordination with the Facilities Planning Management Team, shall continue to participate in annual updates to the Master Plan for County Facilities to ensure needed Sheriff facilities are adequately addressed and planned.

Discussion: Future Sheriff facilities are projected in the Master Plan of County Facilities (MPCF), prepared by the CAO/PPD in coordination with the Facilities Planning Management Team. The Facilities Planning Management Team consists of representatives from the CAO, GSA and Auditor-Controller. For the short-range needs, generally no more than five years, specific information regarding construction schedule, potential sites and associated costs are included. For long-range projections (year 2000), the report includes general locations and estimated costs of the future major facilities. While utilizing the Development Monitoring Program Report (DMP) as a primary data base and reference tool, the MPCF's main focus is on prioritizing short-range capital improvement requirements for the full range of County facilities.

One of the major Sheriff patrol facilities identified in the 1984-85 MPCF is a south County permanent substation in Laguna Niguel. Funding was deferred, according to the MPCF, pending resolution of the mode of service and locational aspects to be determined by a task force.

New or Existing Program: Existing

Implementation Schedule: Ongoing

Responsible Agencies: (1) CAO
(2) Orange County Sheriff-Coroner
(3) GSA
(4) Auditor-Controller

Source of Funds: County General Fund

IV. County Service Areas

A. Overview

There are 16 county service areas (CSAs) in Orange County. Eleven of these CSAs are in the southern portion of the County, the remaining five serve relatively small unincorporated County islands in the northern portion of the County. Of the 16 CSAs, 14 actively provide services while two others, both in south Orange County, are presently inactive.

Governed by the Board of Supervisors, CSAs are authorized to provide a wide range of local services. The most common services provided by CSAs in Orange County are local parks development and maintenance, landscape maintenance and street sweeping. As described in Chapter Two, Community Facility Section, service level and funding provided to CSAs varies.

Since the passage of Proposition 13 in 1978, most existing CSAs have been relying on Special District Augmentation Funds to supplement revenue requirements due to the limitation and reduction of property tax allocation to CSAs. The only newly created CSA in Orange County since passage of Proposition 13 in 1978 has yet to be activated due to lack of funding sources; typical CSA services in this area are provided by homeowners' associations through association fees. Existing CSAs which annex new areas provide street sweeping service to these areas without receiving additional property tax revenues or fees.

B. Goal, Objectives and Policies

1. Goal and Objectives

Goal: Continue the delivery of appropriate levels of local service within the service areas of CSAs.

Objective 1: Service provision should be prioritized and implemented within the limit of funding availability.

Objective 2: Identify and implement alternative funding mechanisms to assure the continued delivery of adequate CSA services.

Objective 3: Optimize local services provided by CSAs through planning review techniques and practices.

Objective 4: Develop alternative mechanisms which ensure that CSA-type services desired by newly developing areas can be extended to such areas which are not within boundaries of existing CSAs.

Objective 5: New land use proposals shall be annexed to existing CSAs for local street sweeping purpose only if a long-range funding mechanism for the service provision is established, or funding to offset the associated cost increase is secured as a result of approval of said development proposal.

2. Policies

- a. CSA Financing: A mechanism to assure that community services can be adequately provided and funded shall be determined for all development proposals, including general plan amendments and zone changes for new and existing planned communities. The formation of a Community Service District, or homeowner and businessowners' associations to provide such services through fees and charges are appropriate alternative devices to provide community services.
- b. Land Use Review: Through EMA project review process, land use proposals shall be required to incorporate appropriate construction and landscape designs and materials to minimize the costs for public slope, median and roadside maintenance.

C. Implementation Programs

1. Coordinated Land Use Development Review

Action: The County shall review land use proposals prior to their consideration in order to evaluate and recommend the appropriateness of annexation to an existing CSA, formation of a new CSA, or utilization of other mechanisms which ensure appropriate provision of CSA-type services.

Discussion: Currently, new developments continue to annex to existing CSAs for street sweeping services while no additional property tax revenue generated from the new developments is allocated to the CSAs to offset the service cost increase. Prior to the establishment of a long-range funding program for CSAs, it is proposed that new developments should not be annexed to existing CSAs unless a cost offsetting revenue source is provided.

In areas of large scale development, new CSAs may be created with the understanding that no property tax revenue would be diverted to provide local services. For example, Aliso Viejo CSA No. 25 was formed with the recommendation that current service funding will consist of property owners' association assessments, benefit charges, or direct developer contributions.

Existing or New Program: Existing program

Implementation Schedule: Ongoing

Responsible Agencies: CAO and EMA

Source of Funds: County General Fund

2. CSA Service Reorganization

Action: Continue a comprehensive CSA service restructuring analysis with recommendations for Board of Supervisors consideration.

Discussion: Since the passage of Proposition 13 in 1978, CSAs have experienced significant budgetary shortfalls, which have been offset by annual allocation of Special District Augmentation Fund revenues by the Board of Supervisors. The total amount of augmentation fund allocation to CSAs from FY 1979-80 to FY 1983-84 is about \$12.34 million, which represents eight percent of the total augmentation fund allocation distribution to all special districts. In addition, the Board of Supervisors, faced with continuous budget shortfalls, directed EMA to report on the effects/status of jurisdictional reorganizations and development of alternative funding mechanisms for miscellaneous CSA-type services.

It is evident that alternative solutions to the provision of CSA-type services need to be analyzed. These alternatives should include consideration of comprehensive service restructuring. Additional subjects to be evaluated should include but not be limited to: service level and funding standardization, alternative funding mechanisms and alternative administrative organizations. For example, formation of Community Service Districts (CSDs) may provide a feasible alternative. A CSD has broader fee-raising ability than a CSA. Also, a CSD may assess fees for the purpose of landscape and park maintenance, while CSAs are prevented from doing so by State statute. It is therefore recommended that EMA studies continue to evaluate and investigate the potential of restructuring the CSA services and make recommendations to the Board of Supervisors for consideration. The results of these studies will be coordinated with and reviewed by the CAO and the Special District Task Force prior to consideration by the Board of Supervisors.

New or Existing Program: Existing

Implementation Schedule: Ongoing; submit initial recommendations to the Board prior to FY 85/86 Budget adoption.

Responsible Agency: EMA

Source of Funds: County General Fund

V. Orange County Street Lighting Assessment District

A. Overview

The primary purpose of the Orange County Street Lighting Assessment District is to provide adequate lighting service along arterial highways and public residential streets as described in Chapter Two, Community Facilities section, supplemental to the countywide intersection safety lighting program funded through the County's Road Fund.

The District has implemented cost-saving devices (e.g., converting to sodium vapor lamps) to reduce operating costs. Although benefit assessment is feasible, the District currently receives sufficient property tax revenue for its operation.

B. Goal, Objectives and Policies

1. Goal and Objectives

Goal: Ensure that appropriate supplemental street lighting is provided to support a quality and safe living environment.

Objective 1: To achieve appropriate level of supplemental street lighting service through coordinated land use review and facility planning processes.

Objective 2: To assure adequate funding availability of providing supplemental street lighting services through implementation of established funding mechanism.

Objective 3: To identify and implement alternative funding mechanisms to assure the continuance of adequate supplemental street lighting services.

2. Policies

- a. Land Use Review: Through subdivision review, all future land use development shall be required to annex to the Orange County Street Lighting Assessment District for lighting service.
- b. Service Operation: All street lighting installation and operation shall be implemented in accordance with EMA Standard Plan 411.
- c. Benefit Assessments: EMA shall implement the benefit assessment when needed to assure continuance of adequate service levels.

C. Implementation Program

1. Coordinated Land Use Development Review

Action: Continue the current subdivision review process whereby all new developments are conditioned to be annexed to the Orange County Street Lighting Assessment District.

Discussion: Orange County Subdivision Committee is charged with the responsibilities to review and approve map applications with proper conditions in accordance with the Subdivision Map Act. CAO and EMA, as members on the Subdivision Committee, should continue to implement the current annexation requirement on all maps.

New or Existing Program: Existing

Implementation Schedule: Ongoing

Responsible Agencies: CAO and EMA

Source of Funds: County General Fund

VI. Orange County Schools

A. Overview

As described in Chapter Two, Schools Section, Orange County school districts will experience a rise in enrollment in the next decade. Of particular notice is the significant growth predicted for those school districts servicing the unincorporated portions of Orange County. Three of these school districts, Saddleback Valley Unified School District (SVUSD), Capistrano Unified School District (CUSD) and Orange Unified School District (OUSD) will require additional capital facility projects to accommodate the projected increase.

In September 1986, the Governor signed into law a series of bills which have profound consequences for school facilities construction and funding. One of the bills, AB 2926, for the first time authorizes school districts to directly levy fees on new residential and commercial construction. The fee rate established was not intended to fully finance site acquisition and construction of permanent school facilities but to serve as a local match requirement.

The new laws limit County and city involvement in the provision of school facilities. Government Code Section 65995, added by AB 2926, effectively removes local governments from addressing the issue of school facilities financing. The Legislation does, however, prohibit the County from issuing a building permit without certification from the appropriate school district(s) that fee requirements have been complied with.

This component describes a goal, objective and policies which reflect the County's efforts in ensuring school facility needs are addressed. The County's implementation programs serve to recognize both County and school district efforts in this regard.

This component provides a basis for programs which serve to implement school facility goals, objectives, and policies, and to establish a framework for additional planning efforts.

B. Goal, Objective and Policies

1. Goal and Objective

Goal: Encourage the funding and development of adequate school facilities to meet Orange County's existing and future demand.

Objective: To achieve the desired level of school facilities through coordinated land use and facility planning.

2. Policies

- a. To continue to coordinate land use proposal reviews with appropriate school districts to assure that facility needs shall be adequately addressed, including the notification and

participation of school district planners in initial County studies of all major developments.

b. To encourage periodic updating of School District Master Plans and analysis of school facility needs by appropriate school districts and County agencies.

c. To continue to require compliance with AB 2926.

C. Implementation Programs

1. Schools' Master Plan Program

Action: Continue to encourage periodic updating of School Master Plans and assist in the analysis of school facility needs.

Discussion: The primary objective of a School Master Plan is to present the present and future facility needs of the district and address the issues associated with the provision of these facilities. Also presented in the Master Plan are the goals, objectives and policies derived to address the issues, along with formulated implementation programs.

The SVUSD Master Plan was developed over a period of approximately one year with task reports prepared at the completion of each major phase. The primary objective is to present the facility needs of the SVUSD into the next century and address the issues associated with those facilities.

The CUSD Master Plan was originally drafted in July 1985. The plan's aim is to provide an organized framework in which to plan for and provide necessary school facilities. Revised in 1987, the CUSD Master Plan addresses issues and needs associated with projected enrollment growth through 1995.

The OUSD Master Plan is the blueprint for a construction/reconstruction program for schools and other capital needs. Based upon new development, ethnicity changes, and cohort survival, enrollment projections are presented based on low, medium and high economic growth scenarios. Growth predictions over the next 5 years, facility funding and short-, mid-, and long-term capital facilities needs are also discussed.

New or Existing Program: Existing

Implementation Schedule: Ongoing

Responsible Agencies: SVUSD, CUSD, OUSD, EMA, CAO

Source of Funds: Various state and local sources

2. Buyer Notification Program

Action: Continue the administration of the Buyer Notification Program as designated by the Board of Supervisors Resolution 82-1368 and as subsequently amended. Land use maps and planning information required by the guidelines shall be updated yearly by the subdivider/developer or, more often, if the Director of Planning/EMA is aware of planning changes which affect the subdivision and make the update a condition of his approval of the map.

Discussion: The Buyer Notification Program provides prospective home buyers and businesses with an overview of nearby planning and development. Information provided includes: demographics, land use and the location of public facilities, including schools.

New or Existing Program: Existing

Implementation Schedule: Ongoing

Responsible Agency: EMA

Source of Funds: County General Fund

3. Intergovernmental Coordination

Action: Continue to develop intergovernmental relations toward achieving school facility provision goals, objectives and policies.

Discussion: Although recent legislation has dramatically decreased the role of the County in the provision of school facilities, the County still plays an important supportive role in ensuring that the County's school facility needs are addressed. Both the County and the appropriate school districts respond to State-mandated guidelines such as those concerning application of funds for construction of new facilities; distribution of funds; site selection; and monitoring and review of implementation programs. Continued cooperation among agencies will provide a coordinated effort toward achieving school facility funding, phasing and implementation of goals and objectives.

New or Existing Program: Existing

Implementation Schedule: Ongoing

Responsible Agency: Orange County Unified School Districts, EMA, CAO, various state agencies (e.g., State Allocation Board, State Dept. of Education).

Source of Funds: Various Funding Sources

VII. CHILD CARE IMPROVEMENT PROGRAM

A. Overview

The primary purpose of the Child Care Improvement Program is to develop measures which will encourage the establishment of child care facilities within Orange County. The Child Care Improvement Program Task Force was directed by the Board to investigate the feasibility of pursuing child care in the unincorporated County and the Santa Ana Civic Center area.

Child care has arisen as an issue exhibiting major imbalances between the need for and provision of adequate and affordable facilities. With a significant increase in women in the labor force, the rising numbers of single parent households, the rise in dual-income families, and the increase in the number of children, the supply of child care has not kept pace with accelerating demand. Orange County has the second greatest child population in the state, and the County Administrative Office estimates it will increase 17% over the next decade. This section describes child care improvement policies and programs which help to alleviate current pressures and also address future demands.

B. Goal, Objective and Policy

1. Goal and Objective

Goal: To encourage and facilitate provision of child care facilities to address the growing County demand.

Objective: To achieve facilitation of child care services consistent with the Orange County General Plan.

2. Policy

- a. Land Use Compatibility: To ensure that child care facility proposals are compatible with surrounding land uses and to review planned land uses adjacent to facilities for their compatibility with facility operations.
- b. Interagency Cooperation: To encourage and support a cooperative effort among all agencies towards the implementation of necessary child care facilities through normal County review procedures.

C. Implementation Program

1. Child Care Improvement Program

Action: New developments will participate in the Child Care Improvement Program through conditions placed on projects in the unincorporated South County area. Appropriate coordination will also be encouraged between the County, school districts, community programs and developers. An assessment of the supply and demand

for child care facilities should be monitored through the Annual Monitoring Report process.

Discussion: The purpose of this program is to ensure that child care facilities are accommodated in areas of greatest need. In order to adequately address child care needs, it is necessary to examine three components of child care. Infant care refers to child care for children 0-2 years old; preschool care is primarily for children 2-5 years old; and Extended Day Care is for school age children after and/or before normal school hours. Provision of sites for the first two types of child care should be encouraged in concentrated employment areas for ease of access for working parents (however, some communities may have sufficient demand in residential areas); Extended Day Care facilities are more appropriate near residential areas and school facilities.

This program also provides coordination between the County and school districts and/or private agencies which provide child care services. School districts/private agency services include before and after school programs located at local schools.

New or Existing Program: New

Implementation Schedule: Ongoing

Responsible Agencies: EMA (in coordination with school districts and other quasi-public agencies)

Source of Funds: County General Fund
New Development Exactions

APPENDIX A

Summary of School Legislation and Programs

AB 2926 Fees (1986)

- o Gives school districts the ability to levy fees on new development projects. Rates of fees are:
 - New residential construction and expansion of existing residences not to exceed \$1.53 per square foot of covered or enclosed floor space.
 - Commercial and industrial projects not to exceed \$0.25 per square foot of covered or enclosed floor space.
- o Exemptions:
 - Projects under construction before September 1986
 - Projects having paid an earlier fee
 - Projects participating in Mello-Roos CFD (proposed)
 - Senior citizen housing (under consideration)
 - Projects not generating pupils (under consideration)
- 1. AB 2926 will very likely change in the future. (Influence will be from the conference committee and new legislation.)
- 2. Facility costs per home in the SVUSD area substantially exceed the fee levels established in AB 2926.

Greene - Hughes School Building Lease/Purchase Bond Act - Proposition 53 (1986)

- Bond issue linked to AB 2926.
- Referendum on the development fees of \$1.50 and 25¢; if it passed - fees initiated; if failed - no fees (no other changes).

Mello-Roos Community Facilities Financing Act (1982)

- o Gives school districts and other local government agencies authority to use property tax-based assessments.
- o Allows public agency to form a CFD as a means of funding schools, fire stations, libraries, or other community facilities.
- o CFDs:
 - may be established either by a two-thirds vote of the residents of the proposed district or a vote of the landowners if the proposed district is inhabited by fewer than 12 registered voters.
 - Once established, may sell long-term bonds which are repaid by property tax assessments on all properties in the CFD.

SB 201 (1977)

- o Allows County agency (Board of Supervisors to impose fees on Residential development to be used for temporary school facilities.
- o School district must show that:
 - Conditions of overcrowding exist in one or more of the attendance areas which impairs normal educational program functioning.
 - All reasonable methods of mitigating conditions are non-existent.
- o Fee Conditions:
 - No building permit shall be issued for any residential development prior to a signed agreement between the school district and the developer that the fees shall be collected at the time of sale, or occupancy, if no sale is contemplated, and promptly given to the district.

Leroy F. Green State School Building Lease/Purchase Law (1976)

- o Provides a funding source for new school construction in districts that meet certain eligibility criteria. Districts required to conform to State facility standards and must make certain payments to the State under local match only (as of January 1, 1987).
- o Eligibility
 - District must show that it is using all available classroom space.
 - District must show that new schools are justified by enrollment growth.
 - State requires that a portion of the project costs be paid by the District. The match amount is defined as that which would have been collected through AB 2926 fees on all building permits issued in the District between the time of project approval by the State and filing a Notice of Completion on the project.
- o Districts become more easily eligible for State aid if the District agrees to pay 50% of the project cost with local funds.
- o Districts that have constructed a new school with Mello-Roos funds may be reimbursed by the State for up to 75% of the cost of the new school. Reimbursement must be used for new school construction or to reduce the debt outstanding on the Mello-Roos bonds.

SB 327 "Greene-Hughes School Facilities Act of 1986" (amended by SB 2068 and AB 3470)

- o An amendment to the existing Leroy F. Green State School Building Lease - Purchase Law of 1976.

- o Authorizes State Allocation Board (SAB) to apportion funds to school districts for capital outlay projects from funds transferred to that fund from any source.
- o Bill requires:
 - Supplemental apportionment for certain school districts as reimbursement for administrative expenses.
 - An increase in allowable building area if funded through another source.
 - Districts can be reimbursed for lease-purchase fund expenditures up to four years prior to the project approval rather than 2 years prior.
 - Revision methods and factors used in calculating:
 - Funding based upon enrollment projections; area of adequate/maximum school construction; new building area for provision of special day class and Resource Specialist Program facilities.
 - Thirty percent of new classroom construction under any project be utilized for relocatable structures.
 - District Architect certifies the project is consistent with standards of the Leroy F. Greene State School Building Lease-Purchase Law of 1976.
 - Authorized apportionment of certain deferred maintenance funding in addition to existing apportionments from the State School Deferred Maintenance Fund; in addition, districts must match additional State aid with local funds.
 - Additional incentive payments to year-round schools meeting specified requirements.
 - Redevelopment agency to conduct a public hearing concerning findings by district of overcrowding; and, to consider amendments for alleviation of the situation.

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